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SIGILL: COLL: HARVARD: CANTAB: NOV: ANGL: 1650.
CHRISTO ET ECCLESIAE
The Gift of
Hon. George W. Bull,
of Buffalo, N.Y.
Recd. 13 June, 1871.

FREEBOTS OF
GEORGE W. BULL
SENATE

WESTERN BANK NOTE & ENG. CO CHICAGO.

Alexander Wilder

You are yet Students upon the threshold of your progression having its principal knowledges yet to acquire. You must learn how to "minister to a mind diseased" as well as to prescribe for the ailments of the body; to distinguish between the fanciful and the philosophical; to do this you will need to study human nature upon the psychological side.

TRANSACTIONS

OF THE

ECLECTIC MEDICAL SOCIETY

OF THE

STATE OF NEW YORK,

FOR THE YEAR 1868.

Transmitted to the Legislature February 10th, 1869.

ALBANY:
THE ARGUS COMPANY, PRINTERS.
1869

C. Sand. Nichol.

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OFFICERS.

PRESIDENT,

ALEXANDER WILDER, M. D., of New York.

VICE-PRESIDENT,

EDWIN FREEMAN, M. D., of New York.

RECORDING SECRETARY,

WILLIAM W. HADLEY, M. D., of Kings.

CORRESPONDING SECRETARY,

A. P. PARSONS, M. D., of Chautauqua.

TREASURER,

DENNIS E. SMITH, M. D., of Kings.

CENSORS,

PAUL W. ALLEN, M. D., of New York,
SAMUEL TUTHILL, M. D., of Dutchess,
R. H. OWEN, M. D., of Rockland,
J. M. COMINS, M. D., of New York,
P. ALBERT MORROW, M. D., of New York,
J. G. FROSS, M. D., of Onondaga,
HORATIO E. FIRTH, M. D., of Kings.

LIBRARIAN,

ANDREW W. RUSSELL, M. D., of Albany.

STATE OF NEW YORK.

No. 71.

IN ASSEMBLY,

February 10, 1869.

TRANSACTIONS

OF THE ECLECTIC MEDICAL SOCIETY OF THE STATE OF NEW YORK.

Hon. Truman G. Younglove,

Speaker of the Assembly:

Sir: I have the honor to transmit to you, as directed by law, the Annual Report of the Eclectic Medical Society of the State of New York.

Very respectfully yours,

WILLIAM W. HADLEY, M. D.,

Recording Secretary.

Brooklyn, E. D., 111 Fifth St., *Feb.* 10, 1869.

ECLECTIC MEDICAL SOCIETY OF THE STATE OF NEW YORK,
ALBANY, *January* 23*d*, 1869.

The papers constituting the following Transactions have received our approval.

ALEXANDER WILDER,
WILLIAM W. HADLEY,
D. E. SMITH,
Committee of Publication.

ECLECTIC MEDICAL SOCIETY

OF THE

STATE OF NEW YORK.

SEMI-ANNUAL MEETING FOR 1868.

The Eclectic Medical Society of the State of New York held its sixth semi-annual meeting in the City Hall, Syracuse, Wednesday, June 24, 1868, commencing at 10 o'clock A. M.

The meeting was called to order by the President, Wm. W. Hadley, of Brooklyn, E. D.

The proceedings were opened by prayer, by the Rev. John J. Lewis, of Syracuse.

J. Edwin Danelson, M. D., of Little Falls, and Prof. James M. Comins, of New York city, were elected Assistant Secretaries.

J. G. Fross, M. D., was appointed a committee to make arrangements for a Society Dinner, at 2 o'clock P. M.

The roll of membership was called by the Secretary, twenty-nine members responding. A number of delegates were also present at the opening of the meeting.

Dr. Fross reported, recommending that the Society dine at the Vanderbilt House; and his report was accepted, and the committee discharged.

The minutes of the last meeting of the Society were read by the Secretary. Dr. D. E. Smith, of Brooklyn, suggested that the adoption of the minutes should be postponed until the annual meeting, which would be the most proper time for such action; and this opinion prevailing, the report was left upon the table.

The Treasurer, Dr. D. E. Smith, read his report for the information of members, the summary being as follows:

Cash on hand January 16, 1868,.....	$102 81
Incidental expenses to date,.....	43 40
Balance in the Treasury,.....	59 41

This report was tabled for final action at the annual meeting.

Delegates from the several auxiliary societies presented their credentials, and were received.

The regular order of business being suspended, proposals for membership were entertained. The following were proposed: Drs. B. M. Genung, E. T. Chaney, C. C. Johnson, A. D. Brooks, C. D. Thompson, J. Edwin Danelson, W. C. Coburn, H. S. Hall, R. V. Pierce, J. Arnold.

The location, and post-office address of Eclectic physicians, residing in the State of New York, and not yet members of the State Society, were solicited.

The Annual Announcement of the Eclectic Medical College of the city of New York was distributed among the members, and remarks in reference to the same were made by the President.

While the Board of Censors were in session, and the Society awaited the report, a discussion was engaged in on the treatment of croup. The varied experience in regard to Spongia were interesting and instructive. This may yet become an important remedy. Further investigation was recommended.

The acetic syrup of Sanguinaria has been more generally used, with a variety of adjunctives. Prof. Allen uses this syrup in very frequent doses, perhaps every one-half, or one-fourth hour; and with this remedy he uses the saturated tincture of Veratrum viride in doses to limit the fever and local inflammation; and he also uses a rubefacient liniment around the neck.

Dr. E. S. Preston, of Rochester, uses the syrup of Sanguinaria, but prefers Aconite to Veratrum viride. Has also used it with lobelia and lady's slipper, in tincture or tea, with good effect. He finds no great advantage in the treatment by Spongia. Prof. J. M. Comins spoke in high terms of the use of chlorinated soda, both in croup, and diphtheria. He combines one part of the soda with four or five of water, and uses a probang every five, ten or fifteen minutes. He also uses it in full strength externally, on a compress, as a counter-irritant. Prof. Comins consented to present a paper on this subject, during the present session of the Society.

The Society now adjourned to half-past three o'clock, P. M., and proceeded to the Vanderbilt House, where a sumptuous repast was in waiting.

AFTERNOON SESSION.

The afternoon session was attended with increased numbers, members arriving on almost every train. The following additional names were proposed for membership: W. H. Bowlsby, E. E. Salisbury, E. L. Baker, T. A. Moore, A. Homer Haywood, F. B. Davis and J. K. Richardson.

The discussion on the treatment of croup was resumed.

This discussion was followed by one on hemorrhages, introduced by Dr. Allen. He cited cases in practice, illustrating the efficacy of the oleum Erigeri. He made a statement of two recent cases cured by the tincture of this oil, in doses of one-half teaspoonful; the one a case of profuse and dangerous vicarious menstruation, from the rectum, and occurring every month during the pregnancy of the patient. The other a case of protracted epistaxis, where other means had failed. He had used it in other, and various forms of hemorrhage, for many years. It was given internally in a little syrup, or cold water. The peculiar action of this agent was inquired after by members of the Society, but nothing satisfactory was elicited.

Dr. C. K. Brown, of Troy, has used the green herb, rubbed up in the hands, and the aroma inhaled, for nose-bleed, for some twenty-five years. Has also had happy success, even in extreme cases of that kind, by saturating a cloth with the oil and placing it in the nose.

Dr. D. E. Smith, of Brooklyn, uses Monsell's Styptic. Professors Allen and Freeman have used this salt of iron in severe and obstinate dysenteries; the former describing his own almost fatal attack, the persistent use of other astringents, his gradual sinking, and the sudden check and relief from the use of a solution of persulphate t iron, by injection.

Dr. D. E. Smith recommended for uterine hemorrhage, equal parts of cinnamon bark, hemlock bark, and witch-hazel leaves. He uses about an ounce of the mixture to a pint of water, with the greatest success.

Hemorrhage in almost every variety was afterward discussed, both in regard to location and cause. Many interesting cases were cited, a considerable number of the members taking part in the debate.

President Hadley closed with some general remarks on the styptics of the Materia Medica, their therapeutic powers, and their uses. He said: Among the various agents in the treatment of disease, and controlled by their use, are vegetable astringents. These are all that is requisite, in some cases; but, as a general thing, depending upon their tanning for their action, they are but temporary in their effect. They are all that is required when we wish but a tonic action or local effect, which will astringe the mouths of the bleeding vessels till nature will heal them. This is especially the case with mucous surfaces. But when the vessels are larger, when some artery is lacerated, more active agents are generally wanted. In fungoid growths the blood-vessels are large, their walls are weak and have little vitality. We want an agent that will not only astringe, but destroy the growth. The persulphate of iron will do this. It not only prohibits the enlargement, but destroys the growth itself, as in the case of a fungus or cancer. We have many articles that will destroy the part, but are not astringent in their effect. In cancerous growths, the hemorrhage is often very violent, greatly alarming the friends, even if the physician is not disturbed, and sometimes the physician loses confidence. The chloride of zinc and sulphate of zinc act readily in such cases. The chloride is a powerful escharotic and styptic; and if you can get it on the part, it is morally and scientifically certain that it will destroy it, and that it will arrest the hemorrhagic difficulty. The sulphate has similar properties, but is not so certain as the chloride. Care must be observed in employing this agent. It will deliquesce rapidly, even when exposed only to the atmosphere; hence the surrounding surfaces must be well protected, or it will escape beneath the plaster, destroy the part, and create inflammation and irritation. In hemorrhoids, I regard the persulphate of iron very useful. I mix it in proportion of one drachm of the powder, to an ounce of simple cerate. It is the finest application that was ever employed, and, with a small quantity of opium or morphine, is very soothing. It is not in this way destructive to the tissues, is a powerful astringent and tonic, and has a permanent effect. By its use, hemorrhoids that have existed for years may be so lessened that the veins will again assume their natural form and tonicity, and convey the blood which they were

originally designed to convey. Hemorrhoids may be cured by tannin, gallic acid, and other vegetable astringents. In some cases, however, they cannot be managed by these agents; and then the per-sulphate of iron must be used in their stead. One difficulty is, its stain upon linens or muslins, and these must be removed, or the part well protected, unless chemicals, such as oxalic acid, assist in washing out the marks.

Prof. James Day, of New York, followed with a few remarks upon the per-sulphate and sub-sulphate of iron, explaining their differences, chemically and therapeutically.

Dr. E. S. Preston, of Rochester, thinks that in the use of styptics the very important one of pressure is too often omitted, and strongly advocates its use. He would prefer a solution of sulphate of zinc in bleeding where there is a cancer. He has used, with good effect, in a number of abortion cases, a mixture of sulphuric acid one part, spirits of turpentine three parts, and alcohol six parts; being careful in the use of the two former.

Prof. Allen would suggest that, in the use of ointments for hemorrhoids, the suppository rectal syringe be employed; the correct quantity being introduced into the rectum at bedtime, and allowed to remain all night.

Prof. Orin Davis, of Attica, read an interesting paper on the Salts of Bromine. The Essay was accepted, and referred to the Committee on Publication.

Thos. Robens, M. D., of Quaker Springs, reported a case of fibrinous tumor, complicated with pregnancy. He also read a paper on nausea and vomiting, giving the following combination, which had been very successful in his hands: Dioscorein, Bi Carb. potassæ, rhei, pulv. i hydrastis, *aa* gr. xx; sulph. morphiæ, gr. ij; swt. spts. nitre, ℥i; hot water, ℥ij. Mix. These papers were accepted, and referred to the Committee on Publication.

Dr. E. S. Preston spoke of the use of sub-nitrate of Bismuth, gr. x., and oxalate of cerium, gr. j., in combination, as being a superior remedy in nausea and vomiting. Dose to be repeated *pro re nata.*

Prof. P. W. Allen referred to a case of extreme nausea and vomiting in the person of Prof. Wooster Beach. In this case, which was fatal, the inflammation was chronic and structural, and the sub-carbonate of Bismuth did more to relieve the distressing and long continued nausea and vomiting than the sub-nitrate. Dr. Beach

suffered greatly for months, and finally there was degeneration of the tissues of the stomach, and vomiting of matter essentially cancerous. Neither anti-nauseants nor opiates gave anything more than temporary relief.

Adjourned to meet at 7½ o'clock P. M.

EVENING SESSION.

The appointment for the evening, the Semi-Annual Address, designed for the public as well as the profession, brought together a large audience.

The President introduced the speaker of the evening, Dr. J. G. Fross, of Syracuse. The theme was "Progress," well written and delivered.

On motion of Dr. D. E. Smith it was

Resolved, That the thanks of this Society be presented to Dr. Fross, and that a copy of his excellent and eloquent production be requested for publication in our Annual Transactions.

Dr. Davis, in seconding the motion for the above resolution, gave a brief biography of Dr. Fross, his college life, his journeyings, and his final settlement in Syracuse.

The Secretary next addressed the Society and audience present.

Adjourned till to-morrow at 9 o'clock A. M.

SECOND DAY—MORNING SESSION.

The Society met at the appointed hour, 9 o'clock A. M.; the President in the chair.

The attendance was larger than on the previous day.

The Board of Censors presented, through their Chairman, Prof. Freeman, the following report:

"The Censors of the Eclectic Medical Society of the State of New York, to whose consideration was referred the applications for admission to this Society, recommend the following named practicing physicians for membership:

E. T. Chaney,.....	Liverpool,.....	22d	Senate District.
C. C. Johnson,.....	Gowanda,.....	32d	"
A. D. Brooks,.....	Irving, ...	32d	"
C. D. Thompson,.....	Allegany,.....	32d	"
J. Edwin Danelson,...	Little Falls,...	20th	"
W. C. Coburn,.....	Buffalo,.....	31st	"
H. L. Hall,.....	Buffalo, ...	31st	"
R. V. Pierce,.....	Buffalo,.....	31st	"
Josiah Arnold,.....	Auburn, ...	25th	"
W. H. Bowlsby,.....	Brooklyn,.....	2d and 3d	"
E. E. Salisbury,.....	McGrawville, .	23d	"
E. L. Baker,.....	Marathon, ...	23d	"
T. A. Moore,.....	Manlius,.....	22d	"
A. H. Haywood,.....	Lowell,.....	19th	"
B. M. Genung,.....	Brewerton,....	22d	"
F. B. Davis,.....	Amber,.....	22d	"

It is recommended that the name of Dr. J. K. Richardson, of Greenwood, Steuben Co., lie over for further inquiry and consideration.

(Signed,)

EDWIN FREEMAN, M. D.,
C. S. TOTMAN, M. D.,
D. E. SMITH, M. D.,
For A. W. RUSSELL, M. D.
} *Censors.*

This report of the Censors was accepted and approved; and the persons thereon nominated were elected, and signed the constitution and paid their initiation fee, thereby becoming entitled to full membership.

Dr. O. Davis read an essay on "The Reciprocation of Ethics and Interests, by Patients and Physicians," and it was referred to the Committee of Publication.

Prof. E. Freeman read a paper on "Talipes, or Club Foot," which was also referred to the Committee of Publication.

The President read a letter from Dr. L. Stanton, regretting his unavoidable absence.

President Hadley addressed the Society in behalf of the Eclectic Medical College of the city of New York.

Dr. Preston followed on the same subject, explaining and enforcing the idea that it was the duty of the Society to sustain the College.

The fact of an Alumni Association connected with the College was announced by Prof. Day.

Prof. James M. Comins presented a paper on the "Use of Chlorinated Soda in Diphtheria and Croup." Referred to the Committee on Transactions.

Prof. James Day presented a paper on "Pharmaceutical Preparations." It was received with approbation, and referred for publication.

Profs. Hadley and Allen addressed the Society on Female Medical Education, advocating the thorough education of ladies in Eclectic principles, and announced that they would be received as students and candidates for the Degree of Doctor of Medicine in the Eclectic Medical College of the city of New York.

Society adjourned to 2½ o'clock P. M.

AFTERNOON SESSION.

The Society, having assembled, resolved itself into a committee of the whole, for the purpose of suggesting new remedies and treatment, adopting a rule that no member should occupy more than five minutes.

Dr. O. Davis suggested a pill for habitual constipation, composed of:

Impure Podophyllin,
Apocynum Androsemifolium, Solid Ext. *aa.*

Dose, one grain each night.

He had found this to succeed when other remedies had failed. He also suggested another pill, as a febrifuge and relaxent, made of:

Lobelia, Solid Ext.;
Licorice, finely pulv., *aa* grs.

To make a firm pill mass. It has also an admirable effect on the secretions of the mucous membrane, keeping the mouth moist. He has not tried it in Bronchitis, but thinks it better than Ipecac or Sanguinaria.

Dr. E. S. Preston has a remedy that he has used for years, and deems worthy of mention. In cholera, cholera morbus or cholera infantum, when accompanied by cold sweats, he has used the Tincture Veratrum, in minute doses; say from one-tenth to one-fifth of a drop for adults, and less for children, with marked relief. Dr. Preston suggested another remedy, useful in acute rheumatism as an anodyne. It is the tincture of Rhus Toxicodendron (poison oak) in doses of about five drops, every five or ten minutes, until the effect is produced.

For nausea and vomiting, the same gentleman suggested powdered Ipecac, in very small doses, not over one-sixteenth of a grain. It is an excellent remedy.

Dr. J. G. Fross, of Syracuse, attested to the value of Ipecac, in small doses. He has found it very effectual. Dr. Fross rehearsed two humorous but instructive cases of protracted labor, caused by a mal-position of the os-uteri. The head of the child does not press upon the cervix, and hence a want of dilatation. He also related a case of mistaken diagnosis, viz: labor at eight and one-half months; diagnosticated as typhoid fever.

Prof. Hadley instanced a similar case. A lady in impaired health, with abdominal dropsy, increasing to an alarming extent, after a consultation of surgeons, only escaped an operation by giving birth to a fine, healthy child.

Dr. D. E. Smith related a case to which he was called in great haste, to see a lady who was dying. The regular physician had pronounced it ovarian tumor, but, within half an hour, it was discovered that the tumor had *legs*.

Dr. Smith recommended highly the following for nursing sore mouth and sore throat: Get the strong lye of oak or hickory wood ashes. Take of this one pint, and add two pounds of maple sugar. Boil till it dissolves, then add one pint of gin. Dose—Take a teaspoonful and wash out the mouth thoroughly, retaining in the mouth as long as convenient. In this the lye is the alterative, the gin is the stimulant, and the sugar is the antiseptic. When given internally the dose is fifteen or twenty drops, in water.

Dr. Davis uses for spasm of the glottis and air cells in diptheritis, the oil of peppermint, putting it in hot water, and having the patient inhale the fumes. It gives prompt relief, even when oil of turpentine fails.

The treatment and diagnosis of cancer was now taken up, and discussed at some length.

Prof. Allen exhibited a set of artificial teeth set on aluminum plate. He reviewed the chemical properties of this metal, and gave reasons for preferring it to rubber or gold, in plates for artificial teeth. He also reported a case of ulceration of the lower jaw bone, produced by filling a tooth with a mercurial amalgam. He exhibited a piece of the jaw bone an inch long, which was detached from the surface of the diseased part. He detailed the treatment of the case, and the re-formation of the bone by healthy granulations.

Mrs. Dr. M. B. Hayden related her experience in the use of Phosphorus in Paralysis, which had been attended with good success. One grain of Phosphorus is triturated with one-half an ounce of beef tallow, and made into one hundred pills. Give one pill per day, gradually increasing to six per day, or one every two hours. Great care must be taken in the manufacture of the pills.

Prof. Allen commented on the almost miraculous power of Phosphorus in the low stage of typhoid fever.

Prof. Hadley had used this article in nervous diseases, in paralytic affections, in all cases of low grade, or where there was a want of vitality in the system. He puts sticks of Phosphorus in olive oil, and gives of this two or three drops once or twice a day.

Prof. Day remarked, the nearer you can come to the crude Phosphorus, the better it is for the system. The hypophosphoric acid is not injurious, but the phosphoric creates gastritis.

Dr. Horatio E. Firth suggested a formula for hemorrhage which he had used for twenty years, and always gives with happy results.

℞. Potassæ Nitratis, pulv.
Sulph. Aluminæ et Potassæ, pulv. *aa.* ʒ ss.
Div. in chart. No. 12.

Give one every hour or oftener, in sweet bugle tea.

Dr. Firth also gave his treatment of Puerperal Convulsions. He puts the patient under the influence of chloroform, not deeply, but moderately, and administers Veratrum in large doses, until its full sedative effect is produced. Sometimes, to this treatment, he adds the injection of Croton Oil, ice to the head, etc. It is his experience that rupture, in the first spasm, generally proves fatal.

Dr. Robens has used in Bronchitis, Veratrum Viride in powerful doses with marked success. In chronic forms, its action is slow. He has also relied upon this agent in Erysipelas.

Dr. Davis has used Chloroform and Veratrum in peritoneal inflammation, which affection, it is his conviction, is caused by urine in the blood.

The following resolutions were presented by the Assistant Recording Secretary, J. Edwin Danelson, M. D.

CITY HALL, SYRACUSE, *June 25th*, 1868.

Whereas, The city of Syracuse has kindly tendered to the use of this Association, the City Hall, for the Eclectic Medical State Convention, during the 24th and 25th instants; it is, therefore,

Resolved, That the Eclectic Medical Society of the State of New York return thanks to the city for such kindness and generosity.

Resolved, That a copy of these resolutions be placed on the minutes of the proceedings of this Society, and a duplicate be published in the Syracuse city papers.

Unanimously adopted.

CITY HALL, SYRACUSE, *June 25th*, 1868.

WHEREAS, The press of the city of Syracuse have kindly noticed the transactions of the meetings of this Society, giving timely notice of such congregation, and have freely and gratuitously announced the public address on the eve of the 24th inst., it is therefore

Resolved, That the thanks of the Eclectic Medical Society of the State of New York are tendered to the newspapers of the city of Syracuse.

Resolved, That a duplicate of these resolutions be presented to the Standard, Daily Journal and Courier, and a copy be placed on the minutes of the proceedings of this Association.

Adopted unanimously.

Dr. H. E. Firth called for information regarding the progress of the National Eclectic Medical Association.

Prof. Allen responded, reporting what little progress had been made.

The discussion of the Standard Eclectic Pharmacopœia followed.

Resolved, That Prof. James Day be added to the Committee on the Pharmacopœia to the National Convention.

Resolved, That Eclectic physicians be requested to found auxiliary societies throughout the State.

On motion of Prof. Freeman it was

Resolved, That the Committee on a National Convention be instructed to take action for the meeting of that organization without further delay.

The Treasurer, Dr. D. E. Smith, announced that there was over two hundred dollars in the treasury, and that the expenses of the Society in Syracuse had been but $5.65.

After a few congratulatory remarks by the President, the Society adjourned to meet in the city of Albany, on the last Wednesday in January, 1869.

PAUL W. ALLEN,
Recording Secretary.

THE ECLECTIC MEDICAL COLLEGE OF THE CITY OF NEW YORK.

The Eclectic Medical College of the city of New York received its charter from the Legislature, on the 22d of April, 1865. The organization was effected the same year; the lease of a building was obtained, and the first term of lectures began in October, 1866, with a class of forty students.

THE FIRST COMMENCEMENT.

The First Commencement was held at the Cooper Institute, on the evening of the 16th of February, 1867. The proceedings have been published before; but, in order to give a more complete idea of the history of the institution, they are here presented again.

The attendance was large, and all seemed to be interested in the exercises. The platform was occupied by the Board of Trustees, the Faculty and distinguished guests. Dr. Robert S. Newton, President of the Faculty, took the chair at eight o'clock, and Rev. George W. Woodruff offered prayer.

Prof. Paul W. Allen, Secretary of the Faculty, read the following report of the session:

We are this evening assembled to hold the Commencement exercises of the first session of the "Eclectic Medical College of the City of New York." This institution was chartered by the Legislature of this State on the 22d of April, 1865. The trustees, after maturing their plans for a course of instruction, and having secured instructors for the several departments, issued their announcement for the course of lectures just now closed. A building had been secured in a situation central in its position, and from which easy access is had to the various hospitals and infirmaries of the city. The building afforded ample accommodations for a lecture room, an anatomical and surgical amphitheatre, and a library.

A Dispensary was also provided to receive, for gratuitous treatment, all the afflicted who might desire to obtain what we regard as the superior advantages of the Eclectic treatment. The examinations of and prescribing for such patients were, in most cases, in the presence of the class, and have afforded an excellent opportunity for clinical lectures. This gave the students an opportunity to compare

the treatment adopted along with the "Old School" medication seen at the different hospitals, and also to judge of the relative success of the two systems of medical practice. No American city affords so ample opportunities for observation in hospitals, and for the study of ophthalmic medicine and other specialties as New York. Our students have availed themselves of these advantages, and have observed many diseases and witnessed many surgical operations which would not have been met with in years of ordinary practice.

From the middle of October last to the present time, a period of four months, our class of forty members have devoted themselves constantly and thoroughly to the didactic lectures, to clinical lectures and to the visiting of hospitals. Part of these students were in attendance upon lectures for the first term, others had attended one or more previous courses, and, in several instances, students had completed their studies and graduated more than ten years ago, and they now came to this college for the purpose of making themselves acquainted with Eclectic medicine and surgery, as well as to enjoy the opportunities for the study of specialties so abundant in this city. All our students have been faithful in their evening studies in practital anatomy, while the Professor of Anatomy has given his evenings to their service.

Our number of graduates is eleven; of receivers of the degrees *ad eundem*, ten; a small number, but one which we believe will do honor to their *Alma Mater*.

Our graduates and other students are deeply interested in the peculiar doctrines of American Eclecticism; peculiar, in that we select our remedies from all sources with impartiality; peculiar, in that we reject blood-letting and all other measures which are extremely depletive and exhausting; peculiar in that we object to mercury, arsenic and other mineral posions; and peculiar, also, in that we are constantly discovering new remedies of inestimable value from the indigenous vegetable products of our own country. The graduates of the Eclectic Medical College of the city of New York will, now and hereafter, go forth the exponents and defenders of universal and progressive medical science.

President Newton next announced the names of the graduating class, as follows:

NAMES OF THE GRADUATES.

PRINCE A. MORROW,	Kentucky.
JOHN BRICKER,	Iowa.
JOHN CONOWAY,	Iowa.

WILLIAM R. MERWIN,	Missouri.
EDWIN H. MILLINGTON,	New York.
JAMES A. MORRIS,	New Jersey.
CHARLES W. DOLLEY,	Michigan.
WILLIAM R. HAYDEN,	New York.
MRS. MARIA B. HAYDEN,	New York.
MRS. JOSEPHINE B. MIX,	New York
MISS H. H. PRATT,	New York.

NAMES OF THE *ad eundem* GRADUATES.

DENNIS E. SMITH,	New York.
JOHN S. PRETTYMAN,	Delaware.
HERMAN BOSKOWITZ,	New York,
C. EDWIN MILES,	Massachusetts.
JOSEPH JACKSON,	Massachusetts.
BENJAMIN J. STOW,	New York.
HORATIO E. FIRTH,	New York.
H. M. SWEET,	New York.
DAVID WILLCOCKS,	New York.
JAMES A. HENSHALL,	Wisconsin.

Dr. Alexander Wilder, editor of the Evening Post and Secretary of the Board of Trustees, then addressed the graduates as he presented each with the first diplomas of the Eclectic Medical College of the city of New York.

"The vocation of the physician is one of the most necessary and important of the callings connected with our social life. When prostrated by disease, every one seeks his aid, feeling secure when that is obtained that the principal service has been rendered, and that his is now the responsibility. In these circumstances it is for the physician to meet his duties with fidelity and concientiously, and to perform them fearlessly. Then, whatever may be the result, he has no cause to blame himself for any reprehensible neglect of his obligations to his patients.

"You have made choice of an arduous and responsible vocation. I appeal to you to accept its requirements with the strictest regard to what is due between you and those with whom you have to do. Maintain the dignity of your calling. You will be brought into terms of the closest confidence with patients and families. Cherish that confidence as sacredly and inviolably as you would maintain a principle of religion, suffering no levity or moment of passion to overcome your fidelity. It is your vocation to bring hope where there has been despondency; to minister life and health to those ready to perish; to mitigate the fierce anguish that afflicts the human

frame. Let that mission, for your own sake, for the sake of those with whom you have to do, for the sake of the profession which you have adopted, be performed with earnestness, intelligently, with zeal, and even with enthusiasm.

"You have adopted the doctrines and ethics of the Eclectic School of Medicine. The field occupied by the so-called regular practice covers the very ground which this school professes to hold. If it had consented, with a generous and intelligent liberality, to permit and acknowledge the meritorious service and actual scientific attainments of our friends, we would have had no more to ask. But a narrow and illiberal conservatism has prevented this. We could not be progressive in idea and practice without transcending the limits which had been assigned; saying nothing about secret cliques and illiberal regulations, by which a favored number have sought to monopolize the honors and emoluments to which all are alike authorized to aspire. Thus, a landmark and a wall of partition have been established, and it now becomes incumbent upon the Eclectic to promote, by all honorable exertions, the prosperity and scientific advancement of the particular school which he has adopted.

"The Eclectic School of Medicine is yet in its early adolescence. It has thus escaped being loaded down with the useless rubbish of former times, while retaining the power and capacity to select and retain what was, indeed, valuable and worthy to be preserved. But it has not sought its choicest treasures in that dunghill. Never having been placed on the rack and dislocated in every joint and faculty by an arbitrary code of medical ethics, it has pushed investigation into fields which others had never explored. In the ardor for new knowledge, herbariums have been crowded on their every leaf, novel remedies in profusion have been obtained from plants generally, the indigenous flora of the western hemisphere, and chemistry, have been pressed into service to enrich our pharmacopœia. The other schools are adopting our remedies, and the ablest medical scholars of Europe import and use them, manfully acknowledging the source from which they came.

"A pleasing duty now devolves upon me. The voice of your instructors has recommended you as worthy to be invested with the rank and honors of the physician. I, therefore, in the name of the faculty and of the trustees of this college, by virtue of the authority granted by the laws of the State of New York, do confer upon each

and severally, the degree of doctor of medicine, with the rights, privileges and immunities pertaining to that dignity.

"With this assumption of your new duties, I entreat you to remember the old maxim, that every one is a debtor to his profession. As he derives from it his means of usefulness as well as of support, he should, in return, add to its scope of scientific research, to its dignity, to its importance. Let the profession be the better off because you have adopted it for your own. Maintain your professional and other relations with the strictest regard for the right; discharge your duties with zeal, faithfulness, and the most rigid delicacy; and magnify your vocation. In conclusion, I beg you to accept my best and most cordial wishes for your future—for your prosperity, your happiness and your health."

President Newton followed Dr. Wilder in an impressive address, embodying practical suggestions, sound advice, and touching words of farewell to the graduates.

The valedictory oration was delivered by John Bricker. It was able, eloquent and well received on the part of the class and all present. An address in behalf of the Board of Trustees was next made by the Corresponding Secretary, Mr. Henri L. Stuart.

MR. STUART'S ADDRESS.

"Ladies and gentlemen of the graduating class, and friends of the cause which we represent: The remarks I shall make would more fittingly come from the lips of the venerable and distinguished President of the Board of Trustees, Hon. William F. Havemeyer; but he is absent, as is also our excellent Vice-President, the Rev. Dr. Strickland. The originating and founding of the Eclectic Medical College of the city of New York was the result of years of conviction and effort on the part of many persons; but the highest meed of praise is due to the widely-known and respected treasurer of the Board of Trustees, Mr. William Moller. This gentleman, more than ten years since, with Mr. Albert Havemeyer, another member of the Board of Trustees, advanced the sum of $10,000 to establish a laboratory and manufactory of the various Eclectic remedies then discovered. In this enterprise they had the co-operation and aid of Prof. Robert S. Newton, then editor of the Eclectic Medical Journal—a position he held for many years at Cincinnati, Ohio. This enterprise has grown into what is now known as "Keith's Concentrated Preparations," and a large fortune to Dr. Keith himself, due

almost wholly to the outlay of money and professional influence on the part of Messrs. Moller, Havemeyer, Prof. Newton, and the members of the Eclectic medical profession in all parts of the country. Mr. Moller at that time offered to purchase or build a suitable college edifice, and to endow it, if Dr. Newton would leave Cincinnati, and take charge of it. Dr. Newton was unable to do so at that time; but in 1863 he came here, and he found Mr. Moller still a staunch and fast friend; and the Eclectic Medical College, which has just closed its first session by the awarding of its first diplomas to its first graduating class in our presence here to-night, is a result of the combined action of Mr. William Moller, Dr. Robert S. Newton, Dr. Alexander Wilder, Dr. William W. Hadley, and other friends of progressive medicine, in and out of the Board of Trustees and of the profession. These men, believing that the time had come for a central American Eclectic school of medicine, to be founded and sustained in the city of New York, procured a charter from the State Legislature. The Board of Trustees named in the charter met, organized, chose officers, appointed an executive and other committees, and prepared a code of by-laws. The Executive Committee, in accordance with the power delegated to it by the Board of Trustees, have secured a college edifice, collected apparatus and materials for the various departments, secured and appointed a competent and unusually efficient faculty, made provision for the first session, which has been successfully held and carried forward to the time when its first graduates are to go out honored and commissioned with the first diplomas of the institution. A free public dispensary has been established in connection with the college, and under the direction of the faculty, which has afforded relief to a large number of sufferers, many of them given up as hopeless by other practitioners. This department will be permanently sustained and continued, whether the college is in session or not.

The wards of existing hospitals, supported at the expense of the public treasury, ought to be divided so as to give to practitioners of all schools of medicine ample opportunity to test the comparative merits of their distinctive remedies and practice. The best interests of the community, as well as common justice and fairness, require this to be done. The Board of Trustees would be distinctly understood as being in favor of giving woman an equal right and opportunity with man to acquire medical education under equal conditions. The ailments of women and children furnish full seventy per cent of

all the practice and emolument of medicine under the most favorable conditions and practice, and this proportion is even greater wherever the 'Old School' practice has exclusively prevailed.

"The Board have noticed the strong opposition which has prevailed in the Bellevue Hospital Medical College, to granting women equal right to medical culture and clinical observation in that institution, and have carefully weighed the reasons offered for and against the course there pursued, and are decidedly of the opinion that that course was unjustifiable, unwise, and wholly indefensible on any fair and manly grounds whatever. Give woman a fair and equal chance, with no prejudice or embaraassing restrictions, and if she fails, under these circumstances, to maintain her professional status, she will gradually and naturally turn to other fields of labor and occupation. 'Good nursing is often more important than medicine in the restoration of the diseased to health,' was once remarked to me by my late venerable friend, Dr. John W. Francis; 'but,' said he, 'this fact I did not sufficiently realize when I was a young practitioner.' Good nursing almost always devolves upon woman; and why should she not be allowed to test her powers as a physician, and to strive to obtain the higher rewards of that position?

"As a member of the Board of Trustees, I desire to make a brief statement bearing upon this question, and to illustrate the unmanly illiberality which we meet at every step.

"Some years since I was introduced one evening to Dr. J. Marion Sims, the founder of the New York State Woman's Hospital, in this city. He was an 'old school' physician and surgeon, who had made a discovery of inestimable value to woman and society, one which has since given his name to all the world as a benefactor and man of genius. This man stood alone and almost friendless among his fellow-practitioners in medicine and surgery in this city. He could not even get a hearing in any one of the medical schools of this city. A well-known practitioner actually borrowed Dr. Sims' private case of instruments, the only ones then in existence, invented as a part of his discovery, to perform Dr. Sims' own operation in the City Hospital, and at the same time was guilty of the gross discourtesy of not inviting him to witness the proceedings. A meeting was called to be held in the old Stuyvesant Institute, on the evening of May 18, 1854. The newspapers were employed, the rank and file of the profession were appealed to, and more than three hundred of them assembled on that rainy night; but very few of them being the lucky and wealthy

practitioners, who make the code of ethics and take the cream of practice in this city. Dr. Sims made his statements, setting forth the necessity of establishing a hospital for the treatment of diseases of women exclusively. Then and there commenced a systematic effort, which finally resulted in the establishment of the New York State Women's Hospital, and now a building, just completed, stands on the northwest corner of the block granted by the Common Council, bounded by Lexington and Fourth avenues and Forty-ninth and Fiftieth streets, in this city. Two others will soon be erected on the same block, in accordance with plans suggested to Dr. Sims by Florence Nightingale, Lady Franklin, and others eminent for philanthropy and humanity.

A few days since, I met Dr. Sims in this city, at the house of a mutual friend, who had been deeply interested in Dr. Sims' effort. There we saw the last annual report of the New York State Woman's Hospital, and in it an 'anniversary address,' delivered by an eminent professor and surgeon, in which he spoke of the progressive character of American surgery, which had been recognized all over Europe —a fact mainly due to the genius and extraordinary skill of Dr. Sims, whose name was not even mentioned, in the address or report, in connection with the institution which he had originated and created.

"I now give place, and introduce one whose voice and pen are potential in encouraging and sustaining all intelligent and practical efforts for improving the condition of all classes of the people. Ladies and gentlemen, my friend, the Hon. Horace Greeley."

MR. GREELEY'S ADDRESS.

"I do not appear as the advocate of any particular school of medicine, nor the champion of any special medical system or theory. I look upon the establishment of an Eclectic Medical College in this city as a protest against abuses and as an evidence of reform. It is a palpable expression of a desire for free thought. Resistance to orthodoxy, I think, is doing good in the world. That school that stands up in opposition to the action of two thousand years is an argument of courage and determination based on purpose and conviction. Such a school might meet opposition, persecution, perhaps—certainly intolerance. The men who were stoned to death in their day, and the stones used afterwards to build their monuments, were the men who initiated radical changes, instituting great good.

I would ask the new Eclectic school to consider the matter of medical etiquette. I see no reason why I should not call on my neighbors or friends of the Allopathic, Homœpathic, or Eclectic schools to advise for my child when it is sick. Yet the intolerance of existing professional rules is such that I cannot do so without risking a wrathful refusal. I sincerely hope the new Eclectic school will not countenance any such Middle-age folly, but that it will adopt a sensible, kindly, and manly rule of tolerance and professional good-fellowship in all such cases, no matter what school of practice may be followed. The spirit of Christian conciliation especially becomes one whose profession is to heal the sick and to prolong life. I think that the practitioners of different schools may consult together with much profit to each other. I hope that the graduates of the Eclectic Medical College of the city of New York will be animated with this kindly and charitable feeling toward all others practicing their profession. I see no reason why forty or fifty rich or lucky physicians in New York should take the cream of practice here and all of the influential positions, and all of the prominence, under arbitrary rules made by themselves, which exclude the great body of their professional co-laborers from all opportunity of competing with them on equal terms. I see no reason why hundreds of good physicians should not announce themselves in a modest card in the newspapers, in the various specialties of medicine or surgery in which they may believe themselves to excel. This would be a sensible thing to do certainly in any other business, and why not in medicine? Yet the intolerance of the rule-makers of old schools of medicine is such that they would crush or ostracise any of their humble followers were they to do so, notwithstanding they themselves are advertised in the most effective way in connection with their official and public positions. I wish the new school of medicine you represent, gentlemen, abundant success, and trust that you will found and build it up on the sound principles of the most enlightened liberality, and lay broad and deep the foundations of a true medical science and system of practice."

At the conclusion of Mr. Greeley's address, the President of the Faculty, Prof. Newton, stated that the American Eclectic School had adopted a code of ethics which allowed consultations with any intelligent and properly accredited practitioner of any school of medicine, no matter how divergent their views or practice. He also said that the same code specially allowed the privilege of reasonable and proper advertising in the public journals.

The closing prayer and benediction were made by Rev. Charles F. Deems.

MATRICULANTS OF THE SESSION, 1866–7.

Allen, C. S.,	New York.
Allen, W. A.,	New York.
Archer, Mrs. C. H.,	New Jersey.
Archer, W.,	New Jersey.
Bailey, S. B., M. D.,	Connecticut.
Boskowitz, H., M. D.,	New York.
Bricker, J.,	Iowa.
Conoway, J., M. D.,	Iowa.
Danelson, J. E.,	New York.
Day, J.,	New York.
Dolley, C. W.,	Michigan.
Firth, H. E., M. D.,	New York.
Firth, L. B.,	New York.
Fitch, J. H.,	New York.
Gregory, O. S., M. D.,	New York.
Hayden, Mrs. M. B.,	New York.
Hayden, W. R.,	New York.
Hermance, H.,	New York.
Jacobson, A E., M. D.,	New York.
Jones, L. A.,	New York.
McElhany, J.,	Virginia.
Merwin, Wm. R.,	Missouri.
Millington, E. H.,	New York.
Mix, Mrs. J. B.,	New Jersey.
Morris, J. A., M. D.,	New Jersey.
Morrow, P. A.,	Kentucky.
Munn, S. B.,	Connecticut.
Platt, S. F,	Maryland.
Pratt, Mrs. H. H.,	New York.
Rude, M. E.,	New York.
Schell, C. C.,	New York.
Smith, D. E., M. D.,	New York.
Sprague, C. S.,	Connecticut.
Sprague, S., M. D.,	Connecticut.
Stalnaker, A. G.,	Virginia.
Stoddard, G. R.,	New York.
Stow, B. J., M. D.,	New York.

Sweet, H. M., M. D., ... New York.
Willcocks, D., M. D., ... New York.
Wright, E. V., ... New Jersey.

THE SECOND COMMENCEMENT.

The Commencement exercises of this Institution were held at the Cooper Institute, on Saturday evening February 8, 1868, before a crowded and intelligent audience, and were opened with prayer by the Rev. Chas. F. Deems. Doctor Robert S. Newton, President of the Faculty, occupied the chair. The report of the session just closed was then read by the Secretary of the Faculty, Prof. Allen.

REPORT OF THE SESSION.

"We meet this evening to hold the Commencement exercises of the Second Session of the Eclectic Medical College of the City of New York. Nearly three years have now elapsed since this institution was chartered by the Legislature of this State, and each year has added to its strength, in the confidence of the profession, and in the interest and sympathy of the friends of Eclectic Medicine.

"The building temporarily secured for the lectures has been found to be centrally situated and well adapted to the purpose; the present Class and Faculty have had excellent rooms for medical, surgical, and chemical lectures, but it must be gratifying to us all to have a reasonable hope to secure ampler and still better accommodations.

The course of instruction during the past term has been thorough and practical. The professors have been assiduous and faithful in their several chairs of instruction; and our instructions have been received by as thoroughly studious and faithful a class of students as teachers could ever desire.

It is no small gratification to the Faculty to commend those young men who to-night receive the honors of our college, to the entire confidence of any community where they may locate, as men of integrity and talent; as young physicians and surgeons who have made the honest endeavor to secure as many of those facts which are to enable them to cure disease,—'quickly, safely, and surely,'—as it has been possible for them. In reference to every disease they have sought knowledge, thorough and reliable knowledge, from the text-books and the teachers of allopathy, homœopathy, and eclecticism; and they have felt and appreciated that, in respect to all the accumulated

truths of the centuries before, they are, each of them, rightfully, in the words of the poet,

"The heir of all the ages."

The Eclectic Dispensary, which has received for gratuitous treatment a large number of patients, has afforded good facilities for clinical instruction; and the lectures on actual cases before the class have been more numerous during the past term than before.

The number of matriculants for the session just closed is forty; the number of graduates twelve. This is a small number compared with the number graduated by older institutions; but it is the policy to recommend to the trustees only those candidates for graduation whose attainments will do honor to themselves, to the college, and the profession.

The relations between this class and their teachers have been most cordial; and nothing has occurred to mar the enjoyments of the session, save the sudden sickness and death of one of the class on the very day on which the degree of Doctor of Medicine was conferred on the graduates, his name among the list—George Lamb. On the last morning of his earthly life, he attested his heartfelt devotion to the interest of his profession, by referring to his home in New Brunswick, and said: "Before I die I hope to see established at St. Johns an Eclectic Medical College." As a faculty and as students, we feel that his life and his death alike teach us to devote unceasing energy and integrity and heart to that school of medicine and surgery which receives all the useful facts of all other schools of medicine; which has made numerous discoveries of great value, as to remedies and remedial processes, and seeks to develop a practice of medicine far in advance of all past requirements, both as to its scientific attainments and its actual success.

Doctor Newton, President of the Faculty, then announced the following graduates, namely: D. P. Bogart, James M. Comins, James Day, L. B. Firth, Elias Harvey, George Lamb, O. H. Simons, Cyrus R. Teed, Henry C. Cooper, and Mrs. H. L. Norton, Miss Anna T. Nivison, *ad eundem.*

Doctor Alexander Wilder, the President of the Board of Trustees, then proceeded to confer the degrees upon the members of the graduating class, and delivered to them the following address:

"It has now become my turn to welcome you into the ranks of the profession which you have adopted. The vocation of medical prac-

titioner is useful, benevolent and honorable. Its duties are most delicate, arduous and responsible; you will discharge them, I trust, ably, fearlessly and conscientiously. You go forth now with an apostleship, to 'heal the sick, cleanse the lepers, raise the dead, and cast out devils.'

"The School of Medicine, in which you are about to be formally inducted, is styled Eclectic, because its leading idea is to 'hold fast that which is good.' There was in earlier times a school of Eclectics in philosophy that endeavored to collate, from Christianity on the one hand, and from the writings of sages on the other, those lessons which they dignified with the appellation of 'knowledge.' The leading systems of all former ages were explored for this sacred purpose, and laid under contribution by these lovers of Wisdom. An analogous labor is devolved upon the members of this department of medicine. The Eclectic School has been in existence only during a part of the present century, and has flourished only upon the Western Continent, and yet it has already far outstripped its fellows in the number and value of its contributions to the Materia Medica. The Homœopathists come to it for many of the most important specifics which they employ. Practitioners and pharmaceutists of the old school, who are fond of declaring that only themselves constitute the genuine 'time-honored profession,' and often stigmatize every physician not of their number as an empiric and pretender, are, nevertheless, at this very time, sedulously engaged in rifling the Eclectic *Materia Medica*, in adding its contents to their own collections, often as their own original discoveries, and are frequently substituting the remedies which the Eclectics first introduced into practice, for the drugs that were used to heal or poison patients with in the days of the former ignorance. In Europe, however, a manlier conduct is often pursued. The most able medical writers there have given credit to the Eclectics of America for their valuable contributions to medicine. Such candor gives some reason to expect, even in this country, where professional assumption and bigotry are still dominant, that, although the present generation make every endeavor to kill our Eclectic prophets, the children will be foremost and enthusiastic in erecting for them sepulchres and lofty monuments.

"The Board of Trustees of this institution have ratified the unanimous voice of your instructors in respect to your qualifications and scientific attainments; and it accordingly devolves upon me to inaugurate you into the profession which you have selected. In the

name of the Trustees of this college, and by virtue of the authority committed to us by the laws of the State of New York, I therefore now confer upon you, each and severally, the title and degree of Doctor of Medicine, with the privileges, rights and immunities to the same pertaining.

"One of these sheets of parchment, bound with the insignia of mourning, reminds us that, even at this initiatory moment, death has broken your number. It is meet to pay a tribute to the memory of the one that has thus withdrawn from our view. It is better to remember his kindly qualities, his manly virtues, and assiduously make them our own. His life, rather than his memory, will thus be incorporated with us.

"In accepting these diplomas I entreat you to remember what is due from you to the profession which you have embraced. While you obtain from it a livelihood, as is perfectly laudable and proper, you owe to it in return your best endeavors. As the Eclectic school has won laurels by its numerous and invaluable additions to the catalogue of remedial agents, let it be your study to extend still farther the field of its discoveries. Make the profession better because you adopted it. The only code of ethics which I shall enjoin upon you is the golden maxim: 'Whatsoever you would that men shall do to you, do even so to them.' This rule is ample for every relation which you will be required to sustain, and it far transcends those narrow and proscriptive regulations which have been made excluding practitioners of medicine from holding communication with their neighbors and the public, through the advertising columns of the public journals and other mediums, in the same way that is permitted to merchants and men of other callings. Such regulations you will do well if you judiciously disregard. It is sufficient for you to do your work faithfully in the vocation which you have adopted, giving no heed to the idle or malignant carpings of others.

"I remember a witty Latin dialogue, which was intended to hit off our profession. A candidate was undergoing public examination for his degree. It was as follows:

"Professor—*Quid est creare?* (What is meant by the word create?)

"Candidate—*E nihilo facere.* (To make out of nothing.)

"Professor, giving him his diploma.—*Bene; te doctorem creavimus.* (It is well; we now create you a doctor.)

"Such an achievement, far surpassing any by Samson or Hercules, I feel confident that we have not been performing. Though

medical instruction is of vast importance and utility, the true physician, like the poet, is born rather than made. Once more enjoining you to remember your obligations to your patients and to your profession, to maintain all your relations toward others with the strictest regard for what is right, to perform your labor with fidelity, delicacy and professional enthusiasm, and to magnify your vocation, I will now conclude. I wish you health; I wish you prosperity."

The report of the Board of Trustees was made by the Corresponding Secretary, Henri L. Stuart, as follows:

"I propose now to make simply a brief statement of the purposes and aims of the Board of Trustees in regard to the future management and development of the Eclectic Medical College of the city of New York. It is the fixed purpose of the Board that this institution shall take the highest rank among the progressive professional institutions of the country. They mean to make it so perfect in its *curriculum* that every practitioner of medicine will find it a necessity to attend upon its instructions before he will be received with full confidence into the families of our people.

"The great body of young men entering into the profession of medicine should choose this profession from a desire to bring into play their ability to do good, and to alleviate suffering; they should look upon it as a liberal profession, governed by beneficent and general rules, a profession dealing with the issues of life and death; and bear in mind that its duties are most solemn and important, requiring the greatest intelligence and unselfishness. It is the purpose of the Board to open the door to this class of conscientious young men, and to aid in breaking down the barriers of exclusiveness and intolerance which now prevent by rules and penalties the medical profession from being liberal. Young men, such as I have alluded to, have very often expressed to me their surprise at finding themselves hedged in and fettered, before they can be received into full communion as practitioners of the Allopathic School of Medicine; and nothing but the fear of ostracism, professional and social, prevents them from leaving the ranks where the few make the rules for and dominate the many with an iron hand. The Board of Trustees of the Eclectic Medical College of the city of New York have made arrangements which assure the permanence of the Institution. Thousands of the sick and afflicted poor of our city have been successfully treated at the Dispensary, or prescribed for and medicines furnished at their homes. Many cases deemed incurable, and given up to die by prac-

titioners of other schools, have been treated and cured. The Common Council have appropriated to it a sum as large as to any other similar institution, and the legislature has also given us an appropriation. The present State Executive has exhibited considerable interest in our success; the Comptroller, Hon. R. B. Connolly, has made himself familiar as a member of the Board of Trustees, with our wants and deservings, and we have every confidence that we shall receive a generous private support. The Dispensary is conducted by the Faculty, and all cases are treated intelligently and efficiently; and great good, we believe, has been done, and will continue to be done through coming years, by the establishment of this institution in the city of New York."

In honor of their deceased companion, the graduating class wore badges of mourning. President Newton, in behalf of the faculty, made a brief statement and eulogium upon the deceased, whom he declared to have been an excellent student, and a most conscientious and trustworthy young man. The address in behalf of the graduating class was made by O. H. Simmons, M. D., in which he paid an eloquent tribute to the memory of his deceased classmate. Prof. Hadley made the charge to the graduates, mentioning an extraordinary fact in the course of his remarks, that one member of the class, who commenced studying medicine four years ago, had been graduated on the present occasion at the age of sixty-nine years. The closing address was made by Horace Greeley:

MR. PRESIDENT AND GENTLEMEN:

The few remarks to which I shall call your attention to-night will be illustrations of a very common truth with very common illustrations. Although there is danger sometimes that the truth may be something forgotten, my text is the simple statement that medicine is progressive. It is true of medical science that it does progress, and that it must be and will be continually changing. I doubt not that the whole field is better cultivated, and that its positions are better understood—that the results are better from the higher discharge of the physician's duties than in the infancy of medicine. Medicine has advanced with the progress of human knowledge, and has been gradually becoming more certain, and gradually giving greater immunity from pain and greater relief from suffering. Those whose knowledge of medicine is as small as mine will know that within the last two generations, not to go further back, the Materia

Medica has very considerably changed, and the uses of medicine have enormously changed; also those who have read the "Practice of Dr. Sangrado," and that is a very popular work. I understand that as an exaggeration, but it is an exaggeration of a basis fact. Even in my day the taking of blood from the human body, in order to cure chronic and ordinary diseases, was a very common resort, and, I venture to say, fifteen years ago doctors practiced bleeding fifty times where one doctor practices it at present. I have no doubt that that is a change for the better. Bleeding was formerly so common that the barber's pole is a representation of an arm laced up and prepared for bleeding; for the doctors, not being very skilled in surgery in ancient times, used to send their patients to the barbers to be bled. So that the colors on the barbers' poles represent the red and blue blood and white bandage, in the same way as in our day we see the red flag, which is the same as the old Roman flag, before the mock auction shops. This flag represented the sales of the spoils of war, when they were to be brought out for sale and distribution.

Within my mother's time, for she was a sort of half-physician, an excellent person who helped everybody, she knew that medical practitioners in treating typhus fevers refused the patient the least draught of wholesome air and shut all the windows of the sick room lest the patient should get a breath of fresh air and die. Where the patient dying of fever wanted a draught of air or cold water, he was forbidden to have it; hence, now and then, patients broke away from the physicians' rules and swallowed cold water in defiance of the doctor, and got well. These cases occurred sometimes, and so on throughout.

I will not talk of calomel; it has its uses and abuses. I only will call attention to the fact that there is not an ounce used to-day in an ordinary medical practice where a pound was used formerly within our recollection. There might be, and probably will be, further diminution of the quantity, but on the whole there is a great improvement. When a green young doctor forty years ago did not know anything about the case, and not knowing exactly what to do, he always gave calomel. It had a powerful alternative effect, and, I presume, was sure to do something. I have seen so many constitutions shattered, and so many men and women reduced to suffering, painful, tortured wrecks, that I have reason to be a little afraid of it. Yet, no doubt, it has its baneful and its legitimate uses. What is needed is, that we should have the knowledge to tell just where

these great poisons should be used; for many potent drugs are poisons, though they may be used with benefit and with reasonable safety and advantage. Now, this fact is deserving of attention, that all great reforms and improvements in medicine have been carried against the profession. I mean the respectable, portly, well-fed, comfortable doctors, well to do in the world, have fought against every great and beneficial change in medicine. They fought against the discovery of the circulation of the blood; they fought against that of vaccination by Jenner; they fought against every change, and all were carried over their heads, and carried by a few despised, reprobated individuals. All reforms in medicine, as in other things, are accomplished, not by popularity, not by applause, but they are always carried by self-sacrificing men devoted to the work, despised and persecuted at their time, who have not patronage and wealth to established and maintain truths which shall benefit generations that come after. So I say to you, my young friends, do not fear to be unpopular; do not fear to find truth and follow it. You will meet, of course, with a roar of disapprobation, a roar of denunciation.

Doubtless, among the truths yet to be discovered, are many truths in medicine. Over all the world the ground is covered or smothered with vegetable growths of one kind and another, and nine out of ten of the plants which we call weeds, are types, not of their worthlessness, but of our ignorance. No doubt, many plants that are now despised and trodden under foot to-day, will be yet found by mankind to be among those which are advantageous. When chemistry and botany attain the rank of positive sciences, which they are destined to do, we shall, no doubt, find all around us, trampled on as worthless, what will be of great value. Not simply higher, but, if I may say so, exacter knowledge will arise—knowledge of the properties of substances now despised, which will be restored to useful application. Yes, in the humblest ways will be found useful plants. Plants now despised and treated with contempt will, no doubt, be found to cure diseases now incurable. I do not believe one single plant may be found without its uses—no single plant or shrub which has not uses for mankind, if they could be discovered, where it has not already been discovered. Among all these uses will be the medical properties.

In traveling across this country I have passed over vast regions, four hundred or five hundred miles in extent, without meeting any human being; no tree to be seen and no vegetable growths valuable

to mankind. Men hurried over this region for years, wondering what such land was made for. Since I passed over it, ten years ago, great mineral wealth has been discovered there by earnest explorers. So there will be around us immense discoveries found out by science. Great discoveries await the qualified and earnest observer. They await the man who has made the preparation necessary to discover them, all around us. The earth is capable of maintaining one hundred times its present population, when men know how to use and how to improve it. The victories of this science, like that of others, demand patient application, earnest seeking, diligent and energetic effort. There are rewards, moreover, in these discoveries, or we prevent faith in God and his providence in the world, in which nothing is made in vain.

Well, gentlemen, what seems to me to be a singular fact to-day with regard to medical science is this, that in the face of the truth that medicine is still progressive, from the earliest ages till now, the physicians of to-day, of the most orthodoxy, scout the idea of such unhealthy methods as were used not three hundred years ago, being used for any human being. They would ask, "How could doctors use such medicine?" it has no relation to disease, there is nothing logical in it; their medicines were accidental mixtures, or arbitrary guesses, or compounding such things as ought to cure on some homœophatic principle, because they would certainly make people sick who should take them. What I object to is, that medical men must lay down rules and laws and say *this is done*, and there shall be no further progress—no further acceptation; what has been done, we have to accept; but we will have no more, no further truth. The continual assumption within a little—a narrow bound set by men who are content with all that *has* been, and say it is all that *can* be. I believe we are just on the verge of great discoveries. I believe that advance will be made in our day in the basal science of all—Chemistry. We have got to know a little, though I do not know much of it myself. Of all that is known to-day, a large majority has been discovered in the time of men who are now living. In all the six thousand years previous to 1750, we had not accumulated so much knowledge on this subject as we have acquired since that time. Since Franklin demonstrated the identity of electricity with lightning, and Lavoisier, the chemist of the last century, made in his discoveries—of all that is known, a large majority has been found out in the life of men now present.

It be would unwise and absurd to imagine that, while so much has been done in the last century, there would not be much more in the next century. We have just begun to discover laws and to acquaint ourselves with the properties of bodies. We are just on the verge of the great ocean of discovery. We are just now on the little, narrow strait of a great continent of ignorance, and the broad expanse is now before us. Be sure that in the life-time of those who are present here, immense discoveries in the knowledge of the cure of diseases will be made. We are yet to learn how to combat and prevent those complaints and chance evils that now afflict and torture mankind. We are soon to know how to deal with disease, so that it will not be incurable. We talk now of diseases being beyond remedy. We talk of consumption as beyond remedy, and some speak so of cancer, which are merely confessions of the present extent of human ignorance. In nature, I am sure, there are no incurable diseases. In nature there are no complaints, no beginnings of disease or misfortunes, no degenerations not to be overcome. We simply confess, when we speak of diseases being incurable, that we are ignorant; that we have only palliative remedies, and that with regard to this we are only beginning to acquire Medicine. Young friends of the Graduating class and friends of Eclectic medicine: My sympathy with this cause is sympathy with liberality. I have learned so much in my day of neglected, despised, contemned beginnings, from which great and beneficent results have been achieved, that where I see men breaking over all this pretension which formerly shut up science within the narrowest limits—wherever I see men breaking over this, I hail them, because I believe they are on the very verge of the discovery of truth.

It would be well if all medical men were willing to comprehend all the schools, and to unite in proving all, and in adopting and introducing all that is good—to say, just come and perform and let us see the test—let us know if there is anything good to be got from it, and we will accept it. If a know-nothing man is attending a patient and he is getting no better, then the doctor who finds he is an incompetent man says he will not visit the patient because that man who is attending is an incompetent person. Why, that is the very reason why he should go. That doctor tells me his reason is so; my reason tells me the other way. You have to decide between us. The doctor who refuses to go in such circumstances is deplorably reversing the true order of proceeding. This is as if the Good

Samaritan would not do anything because the man had fallen among thieves. Yes, friends, I hope the Eclectic School is the entering wedge which will operate toward that state of things which will make the medical profession what the profession ought to be, a truly liberal profession.

I hope to see the time when the doctor will admit he only knows a thousandth part of nature, and will be glad to know the hundredth part, if it is good. How much do we know about nature? I mean wise and learned men, who have learned as yet only the very beginnings of the knowledge of nature. We are children yet, and but in the beginning of science. We will see by and by that we are ignorant, and that much remains to be discovered and appropriated. Then, I say, let Eclectic medicine be always upheld, and with the mind ever open to new truth. It may come from the stable and the manger. It very seldom will come from the palace and the throne—generally it will be from quarters that are despised. Let us be ready to welcome all truths, new as well as old, and apply every discovery to the benefit of this afflicted human family. This is the true mission of American Eclecticism in medicine, as I understand and sustain it here to-night.

THE THIRD COMMENCEMENT.

The commencement exercises of the spring session of this institution were held at the college building on 26th street, on Monday afternoon, May 11th, 1868. The lecture room was crowded to its utmost capacity. The report of the session was read by the Secretary of the Faculty, Prof. Paul W. Allen.

REPORT OF THE SESSION.

The third session of the Eclectic Medical College of the city of New York now holds its commencement exercises. We graduate to-day eight physicians and surgeons; confer the degree *ad eundem* upon six; and bestow the honorary degree upon three. Our class has been comparatively small, but it has been as large as there was reason to expect. The students have given each department of instruction their careful and faithful attention, and we are entirely confident that they will well represent our college with honor and credit wherever they may go.

In addition to the previous departments of instruction, the class have enjoyed a series of lectures on Practical Pharmacy, and another on Uroscopy from Dr. James Day. The essential and practical value of instructions on these subjects must be apparent to every medical man. We regard the introduction of these two departments of instruction, not usually enjoyed in medical colleges, as a permanent feature of our instruction which must commend itself to physicians and students throughout the country.

Among those who received the degree *ad eundem*, are three who have graduated at Homœopathic medical colleges, but whose subsequent investigations have induced them to adopt our remedies and identify themselves in interest, in heart, and in professional labor, with the Eclectic practice of medicine. We have recently become aware of a disposition extensively manifesting itself in the Homœopathic fraternity to investigate the Eclectic remedies. We recognize this fact with much interest. It is an honest and impartial endeavor to ascertain and acknowledge the relative claims of every medicinal agent in the Allopathic and Homœopathic schools; and the great number and intrinsic excellence and efficacy of the remedies discovered and used by Eclectics should attract the honest and earnest attention of every physician; and this institution expects, year after year, that both Allopathists and Homœopathists will seek the instructions of a practice which, in its remedies and its remedial processes, is liberal, philosophical and successful.

We *congratulate* those who are to-day to receive the Degree of Doctor of Medicine, not only because of their attainments, but also because of the *demand* for Eclectic physicians. In almost every city or populous town, well qualified physicians can command patronage, success and honor. Eclectic surgeons, as well as physicians, are specially sought, and many cities cannot yet be supplied where there is an earnest desire for them. Inviting fields are ready for more young men than we have the opportunity to educate.

The Faculty are happy to know that initiative steps have already been taken to form an association, for the past, present and future graduates of this college. The organization will be perfected this evening, and we look to the influence of this fraternity as a powerful and widespread one in favor of the college. We appreciate the formation of the Alumni Association of the Eclectic Medical College of the city of New York as the brightest evidence that the present class appreciate our instructions, are

thoroughly interested in this great educational enterprise, and dedicate themselves, by a life-long pledge, to the enlarging and strengthening of their Alma Mater.

May they live to enjoy many fraternal reunions in which they shall mingle their friendships and sympathies, and recount the experiencies of the varied pathways of their professional life, and bring together the facts they learn, to be distributed in essays, conversations and addresses among their own members, thereby strengthening themselves, and enlarging their usefulness in that nobler profession, of which Carlyle says: "The profession of the human healer being radically a sacred one, and connected with the highest priesthoods, or, rather, being in itself the outcome and acme of all priesthoods and divinest conquests here below."

Dr. Alexander Wilder, the President of the Board of Trustees, then conferred the degree of Doctor of Medicine upon the following graduates:

Mrs. E. B. Andrews, George Battelsen, M. C. Belknap, Dennis Callahan, James E. Danelson, John H. Fitch, William Geddes, R. E. Kunze.

The degree *ad eundem* was conferred on William H. Bowlsby, J. M. F. Browne, J. H. Gunning, C. T. Hamilton, Edward P. Huyler, John Jamieson.

The Honorary degree was conferred on E. Fishblatt, E. O. Plumbe, Lyman Stanton, John Skelton, Calvin S. Totman.

The address in behalf of the graduating class was made by J. E. Danelson, M. D., from which the following are extracts:

LADIES AND GENTLEMEN:

Perhaps at no time in the history of medicine has there been more thorough research, more zealous investigation, than there is at the present time. The desire to elicit facts that will not only guide or avert disease, but will anticipate, thwart or destroy it, has awakened a most commendable effort in every part of Europe and the United States. There are limits in all sciences beyond which man cannot go. In medicine, we can safely say that such a goal has not been reached, and the scientific have pressing invitations to concentrate their labors in this direction, for there is every promise of rich rewards. Even at the present time man is unfolded to the physician's gaze. The sphygmograph, applied to the artery, will picture before him the force, character and extent of the pulse. The opthal-

moscope unveils the innermost recesses of the eye, and will detect the most minute variation in that sensitive organ. The stethoscope leads you to the engine room and laboratory of the system. It listens to the blowing of the great bellows, the lungs, and, with adept ear, catches the faintest deviation in its movement, or, in that of the great locomotive engine itself, the heart. Indeed, in the instrumental department of medicine, there is a degree of perfection that is at once equally surprising and practical. Judging from the past quarter of a century, what may we not expect in the future?

Pathology, which exposes the warfare of the destroyer, disease, shows his weapons, his point of attack, and his manner of combat, has almost passed beyond the limit of improvement or change. Page upon page and plate upon plate define and depict it with the greatest accuracy. Like astronomy, which by the aid of the telescope discovered new worlds and brought our solar system under the most exact mathematical computation, so that we tell of positions, phases and eclipses a century hence—pathology, by the powerful and valuable assistance of the microscope, has disclosed the actions and functions of the tissues of the body, the constituents of the fluids, and brought to our observation atoms even the twelve-thousandth of an inch in diameter. Let us turn our attention for a moment to the *Materia Medica.* Granting the disease, with what shall we cure it? is a question of every day occurrence, and, I may add, of vital importance. I am happy to say that our school of medicine has shown itself preëminent in this grand field of usefulness. Hundreds of new agents have been placed in the category of remedies. Seeking among the "leaves for the healing of all nations," in the mineral and animal kingdoms we are "proving all things and holding fast to that which is good." Of our success, thousands of relieved sufferers and restored invalids present grateful acknowledgments. A critical and impartial posterity will award honors and laudation.

In fairness we must say, that not only our own school, but all schools of medicine are advancing, and the nineteenth century is the dawn of a golden era in the healing art. The average of mortality is less, and this is encouraging alike to the physician and patient, In the midst of all, eclecticism, yet in its infancy, but with the hope and animation of manhood, has raised its arm and vies with its powerful competitors to take the foremost rank in scientific achievement Contrary to the path of the star of empire, it is moving eastward,

already covering the shores of the Atlantic, and its voice is heard in the eastern hemisphere. In the west, surrounded by obstacles and embarrassments, it has declared its purpose, has erected its college, has graduated its hundreds of physicians, some of whom are to-day in positions of respect and command, beyond the pale of impeachment. So, in this very city, our school of medicine must achieve position, must be preëminent, as we believe it should be. But before such a happy result, work and labor are inevitable—work vast and difficult—labor that requires persistent action, united effort and untiring energy. Our Board of Trustees are in earnest in the management and establishment of this institution, and I trust that their endeavors will not be unsuccessful. The college is, undoubtedly, the hope of the profession, and its nerve will give health and vigor to the principles of eclecticism. Reform in art or science, as it encroaches on the usages of the past or present, will always meet with opposition, or, it may be, oppression. Such is the record of history when we refer to the illustrious discoveries and reformations of Galileo, Harvey, Jenner, and many others I might mention. But we fear not the issue, as an appreciative people sit in judgment, and the verdict be given to the world at large.

A few words in regard to the position of the young physician. In most cases he is not fairly recognized. I claim that he should have a fair footing and in some respects equal advantages with the older practitioner. The public put stress upon experience, and justly too. Here is the young man fresh from his books, his lectures and clinical demonstrations, his discussions, and I may say his hourly consultations with his professors for months, and lastly, his examinations. The diploma is the certificate of his proficiency. The practitioner, very true, has passed through the same, but time in a measure has moss-grown his memory and mantled his sagacity. Again, the young physician has witnessed more diseases and in a greater variety than could his senior, except when actually connected with the hospital. He has watched with the inquirer's eye, not only the older methods of treatment, but also the latest and most improved that research, experiment and the advancement in science could suggest. In practice he is more charitably disposed, more deeply interested, appreciates fully his responsibility, and will watch narrowly the varying symptoms in the disease, while the elder in some cases will not take the requisite interest in the minor complaint until it has assumed the more grievous character. There are exceptions, of course, in the

young and old, but it is in the above light that I would present the young physician to consideration.

Mr. President and Gentlemen of the Faculty: In severing the ties of instructor and student, we do not put asunder those stronger bonds of friendship and esteem. Like the deep blue sky dancing the star beam and reflecting the bright orb in its bosom, so the principles you have inculcated we will wear as our brightest ornaments, while within is cherished the memory of your personal kindness and your perseverance, not only in our instruction, but in upholding the cause of liberal medicine. But another word—farewell.

Fellow Students: Parting, at best, is unpleasant; but parting perhaps for a life-time is sad. An almost daily uninterrupted companionship for eight months brings us to the eve of such an event. We are as the scudding regatta, their white wings spread to the favoring wind, their restless heads tossing on the uneasy waters, joined in the common strife. The race has been exciting, the contest sharp; and, ere the shades of night shall wrap us in its silence, we would pause and strain the eye to catch the last glimpse of the friendly sail. By your choice it is for me to give the word of encouragement that shall cheer on the morning's sun, and the last word of caution and advice that may direct the way. First, then, appreciate fully your responsibility. Your life will be a life of study. The culture you have here received is but a beginning of that education that should not rest short of full intellectual attainment. There is no branch of science amiss to the physician. Confirm your diagnosis, and treat with reason and determination, for you have facing you the danger of mistake. "Facilis decensus, sed revocare, hic opus est."—It is easy to stray, but to return, there is the burden. Be conversant with physiognomy, for

> "There's a language that's *mute*, there's a silence that *speaks*,
> There is something that cannot be *told*,
> There are words that can only be read on the *cheeks*,
> And thoughts but the *eye* can unfold."

Be ambitious, but see that such aspiration is guarded by the proper balance of your other faculties. I have done. Success and happiness be your lot, and may your life be one of usefulness to your fellow-man, deserving at its termination no greater comment than "Well done, good and faithful servant."

The charge to the graduates was made by Prof. Hadley, on behalf of the Faculty.

PROF. HADLEY'S REMARKS.

GENTLEMEN GRADUATES:

We have met you here often in this lecture-room, we have given you the benefit of our instruction through the requsite time which is necessary to prepare you for the onerous duties which will fall upon you in the pursuit of your chosen profession. You have passed the ordeal of the much dreaded "Green Room," you have acquitted yourselves with credit to the institution which you have honored by selecting as your Alma Mater, with credit to your instructors, and with greater credit to yourselves, for the industry you have ever manifested during the course which has culminated in your complete and entire success. And now as you are about to leave this place, where you have passed so many months of ardent study, it has been deemed suitable that a few brief words of friendly advice and coun sel should precede the separation between us, and that I should charge you with the expression of our best wishes and a few precepts for your guidance in your future labors.

You have devoted years to the study of the science of medicine; its peculiar phases and intricate mysteries have absorbed your time and thought by day and by night, your perseverance and success are demonstrated by the result which we have this day met here to celebrate.

You are now about to go out into the world, crowned with the honors of your *Alma Mater*, the Eclectic Medical College of the city of New York, which entitles you to all the privileges and immunities accorded to any physician. And, although you are now commissioned by the authority of these Trustees and this Facnlty, and, though you have fulfilled the conditions of study previous to graduation, yet your studies are not to cease; you are not to consider that you have learned all there is to be known upon the subject of medicine. New truths are constantly discovered, new remidies are continually tested and applied, and the medical man should be entirely awake to any innovation which promises a shorter path to health for his invalid patrons.

I need not, perhaps, charge upon you at length an adherence to the principles of medicine in which you have been educated. You have had the benefit of the experience of those who have gone before you, who have tested and proved the success of the peculiar practice which has been taught to you, and upon which they rely in all cases

and in all emergencies. Do not be afraid to let your principles be known; the more you satisfy the people with the knowledge of your mode of practice, and the harmless but efficacious nature of your remedies, the more will they be inclined to employ you to minister to their ailments, and the more also will you become noted in your calling, and remunerated for your human and benevolent efforts.

It is needless, perhaps, for me to impress upon your minds the value which will be attached to the manner of your intercourse with society. I will only say, that those gentlemanly instincts and evidences of good breeding which have characterized you during the brief term of our acquaintance, will guide you, and become a passport and introduction to you in any refined community in which you may reside.

Always strive to be foremost in every laudable pursuit, and promote with your influence and means every plan which has for its object the promotion of the happiness of mankind, or that shall materially benefit his condition, physically or intellectually.

You will be called, in the regular pursuit of your employment, into the most intimate relation with the families of your patrons; you will be made the confidant of many incidents, and, perhaps, secrets that are not mentioned outside, and some that are not spoken inside, the family circle. If your patients confide in you as their physician and friend, sufficiently to impart to you any circumstances or secrets they would confide in none other, your characters as physicians and as men would be involved in any exposures or revelations you might make in regard to them. No one is blameless in violating the sanctity of confidence, and especially the medical man. Furthermore, I would charge you to be kind and faithful to those whose lives are committed to your care. To them you stand, in their estimation, as the arbiter of life or death; their faith is centered in you as the one person who can strengthen the brittle thread of their existence. Betray not their hopes. Prove true to the trust reposed in you. Be faithful to your calling, to the best interests of your patients, and the general welfare of mankind. So will you be esteemed and recognized as a benefactor in the community in which you live.

Do not let any inducement cause you to employ your medical knowledge or skill for any vicious purposes, or allow any subsidy of means or hope of preferment to swerve you from the strict path of rectitude.

And now it only remains to me to tender you our expressions of thanks and gratitude for the assiduity with which you have pursued

your studies during the course which has now just terminated, for the excellent and close attention you have given to the instructions that have been communicated to you, for the respect and consideration you have ever manifested toward your teachers, and the harmony that has ever characterized the intercourse between Faculty and students. And when as Alumni of the Eclectic Medical College of New York, your thoughts are turned to the time you passed in her halls, forget not her interests; remember that the work she has to do is arduous in character, that she is expected to fill this land with Eclectic physicians, with men who are to go out as you go to-day, thoroughly instructed in her precepts, and indoctrinated in the principles of Eclecticism, and that to do this she must have the students to educate. In view of this you will well understand your duties, you will see the responsibilities resting upon you to furnish them as far as you have the power; you are now members of the fraternity of medicine, and upon you, with others, rest its best interests, which in all ways you should ever strive to promote.

We can but congratulate you on your success, and hope your prospects in future life may be constantly bright and cheering, and that your practice will demonstrate to the world the great advantages and superior success of the Eclectic system of medicine.

With these expressions of kindness, and aspirations for your future success and happiness, I reluctantly sever the relations that have existed between us, and bid you farewell.

THE FOURTH COMMENCEMENT.

The commencement exercises of the Fourth Session of this Institution were held at the College Building on Thursday evening, Feb. 4th, 1869.

Dr. Alexander Wilder, President of the Board of Trustees, occupied the chair.

Rev. D. K. Lee opened the exercises with prayer.

The report of the session just closed was then read by the Secretary of the Faculty, Prof. Paul W. Allen.

REPORT OF THE SESSION.

We are assembled this evening to hold the Commencement exercises of the Fourth Session of the Eclectic Medical College of the city of New York.

From the date of our charter, April 22, 1865, until now, the progress of our educational enterprise has been regular and permanent. We believe it can be truly said that the College has never excited any expectations of the profession and of students of medicine which it has not amply fulfilled.

The session just closed has been eminently harmonious and pleasant. The entire feeling of the Class has been that of mutual courtesy and friendship for each other; of respect and kindness to their teachers; and of constant and earnest enthusiasm in the pursuit of the knowledge of their chosen profession. Our belief is, that every student has been industrious in his studies, has carefully avoided every outside excitement which might attract his interest and attention, and has devoted himself, or herself, to the thorough acquisition of medical and surgical science.

Very rarely indeed has any student been absent from any lecture given by either of the Professors; and all have seemed anxious, day by day, to gather such definite ideas of our teachings that they could thoroughly understand us, and thus be prepared to use such knowledge in the duties of the profession.

Our class has been small—twenty-seven matriculants and only seven graduates; and yet we feel that the influence of our instructions will tell on the medical welfare of thousands of families of the afflicted.

Of this number, six were ladies; and it was proper in this connectton to state, that, by making provision for their separate instruction in dissections, and in a few lectures, all objections to the joint education of ladies and gentlemen in medicine and surgery seem to have been entirely removed. The attendance of ladies has in no way injured the usefulness of the course of lectures, and their presence has added greatly to the social and refined enjoyment of all. We know not what may be the future action of the College in this respect, but it is not too much to say, that, in the experience of the session just closed, it has been an agreeable and perfect success. It can scarcely be supposed that any lady who aspires to the sacred duties of the physician will be less than a lady; and no man has the least right to be a physician who is less than a gentleman.

Among our students have been those who have devoted many years of study to their profession, and have performed its duties to a limited extent; and some of these have practised other systems of medicine, and have only attended our College because their intelli-

gent convictions have led them to believe that the Eclectic practice is more successful and more scientific than either Allopathy or Homœopathy.

From conferences which the Faculty have had with physicians who visited the city, and from correspondence with a still greater number in many different States, we distinctly infer that a large proportion of the students of this College for the next ten years will consist of medical gentlemen who have heretofore studied and practiced other systems—some of them for many years. We invite all such to test our system, as it shall approve itself to their reason, in its teachings; and as it shall prove itself successful, in its practice.

This College has now graduated about fifty physicians, aside from its honorary and *ad eundem* graduates; and these physicians are mostly settled in lucrative business, and are attracting to themselves the respect of the public and the confidence of the afflicted. Promising fields of usefulness are now open to many more Eclectic physicians than attend this College, and the inducements to enter the medical profession were never before so great as now.

New York is a better field for the observation of medical students than any other city; its hospitals embrace every class of indvalids; its dispensaries illustrate every variety of chronic disease; its clinics are now at least as varied as those of any European city; and the opportunities of studying specialties, under teachers who have long devoted themselves to perfecting their knowledge of particular diseases, is nowhere excelled.

The Eclectic Medical College of the City of New York is becoming better known every year; and the Eclectic medical societies of Maine, Vermont, Canada, Massachusetts, Connecticut, New York, and some other States, have signified their approval of our College by such action as shows their fullest confidence in the scientific character and practical value of our instructions. This institution had never before as many friends as it has to-day.

We cannot close this report without referring to one other topic. This College would wonderfully enlarge its usefulness if it could receive such an endowment at once as would free its building from debt, enlarge its cabinets and add to its apparatus for the illustration of the medical sciences. A few intelligent friends in different States are fully aware of this; and what better benefaction could they make than to endow such an institution with the means of enlarged usefulness—an institution which has now the full confidence and patronage

of the public; an institution whose medical doctrines and practice are so fast securing the confidence of physicians and of the American people; an institution devoted to the advancement of that science which is dedicated to the saving of life and the relief of suffering. Missionary and educational enterprises receive the generous benefaction of hundreds of the wealthy and the poor, and distinguish our age as the age of charity and brotherhood, of enlarged humanity and usefulness. Who will stand forth and, by munificent generosity, establish, in the fullest success, an enterprise second to none in its service to the human race?"

Prof. Newton then announced the names of the following candidates for graduation:

Wm. Archer, New Jersey; Mrs. H. E. Archer, New Jersey; M. F. Linquist, New York; Homer L. Sweet, New Hampshire; Isaac S. Miller, New York; George O. Starr, New York; T. C. S. Berry, Maine.

The Diplomas were conferred by the President of the Board of Trustees, Dr. Alexander Wilder, who addressed the graduates as follows:

DR. WILDER'S REMARKS.

"As you have complied with the requirements of the law in relation to this matter, and upon the recommendation of your instructors, I do now, in the name of the corporation of this College, as the President of its Board of Trustees, confer upon you, each and severally, the degree of Doctor of Medicine, with all the rights, powers, privileges and immunities pertaining, and present you with these diplomas in testimony.

"The profession, into which you have thus been inducted, has been honored and honorable in all history. Those who made it their vocation bore the title, as they now do in some countries, of *the wise men.* They were supposed to be proficient in those mysterious knowledges which embraced in their scope the whole kingdom of Nature, to be possessors of the transcendent wisdom, and able to read human destiny. The maladies of the body were at their command; they were also supposed to control the more occult elements of being, to have the higher intelligences for their ministers, and even to be able, in extraordinary cases, to enter the world of the dead. Orpheus suspending by the music of his lyre the punishments of Erebus, and summoning his deceased wife from the grave, Asclepias restoring dead

men to life, Gregory the thaumaturgist recovering men from deadly maladies, Apollonius healing the sick by a look or touch, the alchemists prolonging life indefinitely, were symbols to express the almost superhuman power which the physician was believed to be capable of exercising.

"Science, in modern times, has divested our profession of these miraculous endowments. The cloak of the alchemist is laid aside, and with it the faith of an *elixir vitæ*, leaving the physician, in a great measure, shorn of his locks and mysteries, and occupying a plane of life similar to other men. Nevertheless, do not forget that the art of healing is not the mere employment of material forces. There is no such mathematical problem set as this: given, so much diseased condition; add so much medicine, and the result will be certain restoration to health. Other conditions and agencies are involved. You are yet students, upon the threshold of your profession, having its principal knowledges yet to acquire. You must learn how to 'minister to a mind diseased,' as well as to prescribe for the ailments of the body; to distinguish between the fanciful and the philosophical. To do this, you will need to study humanity upon the psychological side; to

> 'know with certainty
> What are the properties of the soul;
> Of what fashion are its members,
> What region is its abode,
> By what breath, what inflowing, it is sustained.'

"The true physician is the priest of Nature and the minister of Nature's great Author. His lore comprises all that men need learn —from the all-sufficient source, the laws which direct the universe, clear to 'the healing herbs where no delusion is.'

"Having made choice of this vocation, let me entreat you to accept its obligations with the strictest fidelity. You are ordained and set apart to cure or *care for* the sick; to bring hope where there has been despondency; to minister life and health to those 'ready to perish;' to mitigate the fierce anguish that racks the human frame. Perform all this with earnestness, intelligently, with zeal, and even with enthusiasm. Maintain the dignity of your calling. Be courteous in your deportment, correct in your language, refined in your sensibilities. Preserve the strictest regard to what is due between yourselves and those with whom you have to do. Cherish the confidence of your patients as sacredly and inviolably as you would maintain a principle of religious faith, suffering nether levity nor a moment of passion to overcome your fidelity.

"Remember, also, that every one is a debtor to his profession. Deriving from it a subsistence and the means of usefulness, there should be rendered in return additions to its stores of scientific research, to its value and importance. Let your profession be the better because you have adopted it. Maintain all your relations with the strictest regard for the right; discharge your duties with zeal, faithfulness and delicacy, and magnify your vocation. Remember kindly your *Alma Mater;* with her welfare and reputation your future career is closely and almost vitally interblended. Your achievements are her glory. By fidelity, earnest persistence, discretion, fill up the volume of your life. Push your inquiries in every direction, reverently add to your knowledge and sagacity, till you realize the idea which the title of *physician* manifestly implies for it—the minister of Nature and her interpreter to mankind. May your future career be prosperous, useful and happy."

Brief addresses were then made by Prof. Robert S. Newton, Rev. D. K. Lee, Dr. John Stowe, of Mass., Henri L. Stuart, Esq., Corresponding Secretary of the Board of Trustees, and others.

The Valedictory address in behalf of the graduating class was made by Homer L. Sweet, M. D. It was an exceedingly interesting and choice production, and elicited the most gratifying tokens of satisfaction.

The charge to the graduates in behalf of the Faculty was pronounced by Prof. Edwin Freeman, M. D., from which we make the following extracts:

REMARKS OF DR. FREEMAN.

"According to a time-honored custom, the observance of which is, perhaps, not improper, I have been appointed by the Faculty to address a few words to you. The occasion is not one of sadness, neither is it one of joy. For why should we be sad, since so many free, earnest, bold and liberal spirits are this evening born into the medical profession, to search after truth and make her their own; as well as to grapple at the throat of medical intolerance and bigotry, and aid in crushing out of existence such deadly foes to advancement and reform. Neither should we be joyous, since you, with whom we have had almost daily intercourse for so long a time, are to depart from our sight—perhaps forever. We trust that it may not be forever, but that often there may be found inducements strong enough

to call you to this great city, where this pleasant acquaintance may be renewed.

"In granting you medical diplomas, the Faculty and Board of Trustees do so, after you have completed the term of study required in the charter of the College, and fulfilled all the other conditions and requisitions of that charter. These are the same as those of other medical colleges.

"You, therefore, go out, authorized by the highest power in the State, to practice your profession; and you are guaranteed, by the Constitution of the United States, the same privileges and immunities, as well as the same rights in all the States, that are given to you in this State.

"In the lecture-terms which you have attended, you have listened to complete and systematic courses of lectures on all the various departments of medical science; you have read the best and most accepted text-books on the various subjects treated of in those departments; and now these crowning honors make you regular graduates in medicine, and graduates, too, of a respectable regular Medical College.

"Hereafter, I hope when this is denied by any one, you will challenge him, who makes the denial of it, to the proof to the contrary, for you are entitled to enjoy all the rights and immunities which belong to a regular graduate of medicine. This would be of no particular moment, were it not for the false impression made upon those who do not understand the real merits of the question, and whose patronage you may desire. They, observing that a certain class of physicians only claim, and are seemingly tacitly allowed to be styled *regular*, and judging that they only, are therefore regular, and that all truth and progress in medicine should be among them, may conclude that all such qualities do belong to them, and to them exclusively. This delusion you must persistently combat, and show, as you can, conclusively, that those same self-styled 'regulars' in medicine have always in the past, as they do now, opposed with all the power they possessed, even to violent persecution, any innovation upon the regular practice. They opposed the new doctrine of the circulation of the blood, which is so familiar to you all now, because it was an innovation, and persecuted its author with the most remorseless hate. When vaccination was first introduced, its distinguished discoverer met with a similar reception. So, too, at a later day, when it was discovered that there was another way, better

than the *regular* one of blood-letting and salivation for curing disease, the author of that, and all who believed in him, were mercilessly persecuted and even thrown into prison for daring to deviate from the beaten track.

"Gentlemen, the little cloud no bigger than a man's hand that then rose on the clear horizon of their view, is now becoming of vast dimension, and threatening the time-worn hull of their crazy ship with quick impending destruction.

"The light of the life-awakening sun shines in through the rents and fissures, and we see the effect in the quickening into life and growing up into the stateliness of freedom and independence, of many minds formally enthralled and enchained in the slavery of error.

"But why such persecution because it is sought to discover something unknown? Is not the world full of hidden truths, for which thousands of earnest minds are seeking all the earth over? Is it at all probable that we were made to stand still and be always satisfied with what we are, and what we have? Is not every department of science making prodigious efforts to delve into the hidden things, and make what is, more perfect? And can it be possible that, as physicians, we can be satisfied that we know and use the best possible agents in the treatment of disease? Is it not presumption for any man or set of men to say that what they knew is all there is to be known, and what they cannot discover no one else has the power to discover?

"The Eclectics seek to improve the practice of medicine, and that, indeed, should be the end and aim of all the investigations in medical science. This is best done certainly by improving the agents that we use, by culling out and discarding the dangerous ones, and substituting for them those that are less harmful, and thus we may accomplish some of the great good for which the science and art of medicine was instituted.

"You go out from us to a new sphere of duty. Be liberal, be independent; be not satisfied with your present stock of knowledge, but seek it from every source. Gain knowledge and treasure up experience. Knowledge will be to you power, and experience will enable you to best apply that power. Do this, and if nature has endowed you with good intellects, and you have the manliness and courage to fight your own battles, you will make for yourselves not only reputations, but an indelible impression upon the record of the present.

"We counsel you to study well every case that presents itself to you. Make your diagnosis correct, even if you have to keep the prognosis to yourself. Be careful as you approach the sick bed. Let not constant familiarity with sickness encrust your finer feelings or harden your more delicate sensibilities. Be as careful with your patients as you would like to have another be with you when sick and racked with pain. How common it is for physicians and surgeons to seem to be rough and hardened to feeling. Be you not so, but speak pleasantly, move around softly, and handle your patient gently, and you will have your reward. Be *gentlemen always* and everywhere, for you have no right to be otherwise. Make not light of the confidence reposed in you. Let those secrets which your patients may confide to you be held sacred and inviolable. Be the comforter of the comfortless, the joy of those who may be cast down, the good adviser of those who have gone astray, and in all the activities of your lives, in your incomings and outgoings, and in all that you may do, be temperate in all things, and patient and earnest worshippers at the shrine of truth. Let not the wine cup allure you into the fatal vortex which leads to drunkenness and all its woes. And, finally, be faithful and humble followers of him who was the great Physician, whose example we may all follow. With these few remarks we bid a final adieu, and we assure you that you have our best and heartiest wishes for your greatest success, hoping also that you will bear in mind the teachings you have received here, and that your Alma Mater may always be held in kind and pleasant remembrance, and that she may be the object of many of your well-directed efforts for her support and perpetuity. Again we bid you adieu."

THE FIFTH COMMENCEMENT.

A large audience assembled at the College building on Thursday evening, the 6th of May, 1869, to witness the Commencement exercises of the Fifth Session of the Eclectic Medical College of the city of New York.

In the absence of Prof. R. S. Newton, the President of the Faculty, Prof. W. W. Hadley occupied the chair.

The exercises were opened with prayer by the Rev. C. C. Goss. The report of the session just closed was then read by the Secretary of the Faculty, Prof. Paul W. Allen.

REPORT OF THE FIFTH SESSION OF THE ECLECTIC MEDICAL COLLEGE OF THE CITY OF NEW YORK, BY THE SECRETARY OF THE FACULTY, PAUL W. ALLEN, M. D.

The Faculty of the Eclectic Medical College of the city of New York congratulate the Trustees and friends of this institution upon the circumstances in which we are assembled on this occasion. The fifth session of the college is closed with the exercises of this evening. Five classes of physicians will, on the morrow, have gone from these walls, claiming this college as their *Alma Mater*. The young men who have here been instructed have come here, in this as in former sessions, as sincere and earnest seekers after knowledge. They have made this their chosen place of instruction because they desired an honest, independent investigation of all the truth which belongs to medicine and surgery. The spirit of true science is ever without bigotry; and especially should the student of medicine be free from all prejudice when the objects of his study are truths which most practically relate to the good of humanity.

The physician is, in an enlarged and true sense, the friend and helper of his fellow man, that noble and knowing friend, whose duty is to understand and use those agencies which are to save the life of his brother man, or, in the last emergency, to relieve his physical suffering and his mental anxiety. Humanity can accept of nothing less, in such circumstances, than *all* that the physician can know. His benevolence as a humanitarian should unite with his knowledge as a man of science, and both be dedicated with earnest, clear-sighted purpose, to relieve suffering and save life.

With such noble impulses have these young persons, day after day, and session after session, met here to receive counsel and instruction. We believe that those who compose the Faculty of instruction in this college have ever encouraged these aspirations, this manly and independent thought, this determination to know from all, what may be known, that shall fit them for their high vocation. Our students have all been earnest workers, faithful in duty and true in spirit, They have gone forth into an hundred fields of professional labor and love and care to exercise their calling. This Faculty have watched their work, their position and their success, as fathers do who send forth their sons into distant cities and far-off climes, to develop new enterprises. We feel that we have a goodly report from these men, that they are worthy fellow laborers; that they are successful in

almost every instance; and that, in instances not a few, they have already fully established themselves in their several communities, as responsible, intelligent and trusted advisers. Again and again do they write their instructors, thanking us a thousand times that we gave them that knowledge of medicine upon which they could depend; that knowledge which has already given them a position and a practice in advance of those men of other systems of medicine who are their competitors.

A number of our students in this and previous terms had previously been graduates and practitioners of allopathy and homœopathy; and these now add their willing and grateful testimony to their success, since being taught those remedies of progressive medical science which they learned in this College.

This evening seventeen will receive the degree of Doctor of Medicine. Our new graduates, all of them, have been diligent and faithful in their studies and attendance upon the lectures. We judge, too, that they recognize correctly the true principle of medicine, and that philosophic temper and logic which should characterize all through our lives the devoted and successful members of our profession. We expect to hear of them as well as *from* them, and to know that they are, in each of their communities, physicians whom the intelligent public will delight both to trust and to honor.

We cannot close this report without a few words to the trustees of this College, and to those friends of liberal medicine who are here assembled. We are almost daily receiving applications from numerous cities and towns asking us to send to them, to use their own words, "a good Eclectic physician." Not one-fourth of these positions can be filled. There are hundreds of places where the public sentiment demands this Eclectic practice, where it is recognized as a system of science and success. Men who have seen the treatment of patients under the different systems of medical practice do not want to trust their lives and the lives of their families and friends with any other practice. All that we can say to three-fourths of these applicants is: Send us your young men—your young men of purpose and principle, of good brains and honest hearts, of natural intelligence and judgment, and let us store those intellects for your use and for blessing all your communities. Medical education is not alone a personal and selfish matter. It is not less for the community than for the physician himself. It is a great public interest and welfare. The kind

and degree of a physician's education is very often, in a time of prevailing sickness, that which practically decides how many shall live and how many shall die. And there is no nobler benefaction which any man can confer than to rightly educate an earnest, clear-thinking and clear-souled man, in the daily useful and ever responsible profession of medicine. Many men of wealth now ask themselves, as they realize that their footsteps are approaching towards the end of the march of an honorable and successful earthly life, what can the surplus of my possessions do for humanity? One man decides to found an institution of learning for his native town; another establishes a public library; another endows a hospital; a fourth establishes an asylum for the aged poor; another endows a new professorship in some college, or bequeaths a liberal sum to a Bible, tract or missionary society.

The Eclectic practice has now many friends among the intelligent, wealthy and influential; and it seems to us that some systematic effort should be made to direct the attention of such persons to the needs of medical education. Who will educate young men? Who will endow our colleges, and thus greatly enlarge our facilities of instruction? Hundreds of men, in numerous cities and towns, intelligently and most decidedly prefer our practice. How can they be more useful than to assist in endowing colleges to educate such persons to the highest standard of scientific attainment and practical success?

The facilities for instruction in this College are every year improving. The Faculty are constantly adding to their experience and to their information as to what should be taught, and how it should be taught. Our students are favored with as much clinical instruction as it is in our power to give. Numerous cases are presented to the class; and our city affords the most enlarged opportunities for clinical observation under allopathic and homœopathic teaching of any city in the world. Our students can thus compare other teaching with that taught within these walls, and thus definitely know the clinical practice of all the different systems, and judge of their relative merits for themselves. We have even arranged our hours of lectures so that they can make this practicable, and they have done this faithfully and extensively. It would be an advantage, with an increased number of Eclectic dispensaries in this city and Brooklyn, to have still fuller clinical instruction in our own methods and remedies of medical and surgical practice. We hope that soon another professorship will be added to our already very complete corps of

instructors—a Professorship of Clinical Medicine and Surgery. This would be warmly welcomed by our classes and appreciated by the entire profession of the country. When such a plan is accomplished we are confident that many physicians and surgeons, of both allopathic and homœopathic education and practice, will here resort to learn those newly-developed truths in theory and in practice, which are so inestimably useful to the profession and to the afflicted.

Our course is onward. This school is no longer an experiment. We are certainly realizing success. This College is the exponent of a public sentiment which is every day growing stronger. Three years ago, the Eclectic Medical Society of this city numbered only ten; now it numbers nearly fifty. Our State society then numbered fifty; now it contains one hundred and fifty members, and its "Transactions" are annually published by authority of the State, in a large volume. The Faculty and trustees of this institution believe that it is destined to exert a wide and powerful influence on the medical education of the entire country, and we ask our friends, here and everywhere, to second our efforts efficiently with a zeal and energy worthy of the cause in which we are engaged.

Then followed the announcement of the names of the candidates for graduation:

LIST OF GRADUATES.

Charles H. Archer,	New Jersey.
L. A. Shattuck,	Maine.
B. F. Chapman,	New York.
W. J. Smith,	Brooklyn.
W. D. Cheesbrough,	New York.
W. A. Allen,	New York.
S. Roe, Jr.,	New York.
Mrs. E. A. Brown,	Massachusetts.
Mrs. Zitella Ostrander,	New York.

AD EUNDEM.

R. W. Geddes,	Massachusetts.
E. W. Dewitt,	Arkansas.
T. S. Perkins,	Massachusetts.

HONORARY.

John J. Hyde,	New York.
William Jones,	New York.

Samuel Tuthill,..... New York.
John M'Cartney,..... Ireland.
Oliver Crane,..... Pennsylvania.

The degree of Doctor of Medicine was conferred by Dr. Dennis E. Smith, of Brooklyn, Vice-President of the Board of Trustees, who delivered to the graduates an eloquent and highly impressive address, touching their duties as physicians and as men.

Brief addresses were then made by Rev. C. C. Goss, by Professors Comins and Day, and by Henri L. Stuart, Corresponding Secretary of the Board of Trustees.

The valedictory address in behalf of the graduating class was delivered by Charles H. Archer, M. D. It was well written and reflected the highest credit on the writer.

The charge to the graduates, in behalf of the Faculty, was pronounced by Prof. J. M. F. Browne, who spoke as follows:

ADDRESS OF DR. BROWNE.

Ladies and Gentlemen of the Graduating Class:

My colleagues of the Faculty have assigned to me the duty of representing them on this occasion, and of addressing to you, on their behalf, a few words of congratulation and of parting advice.

The tie that has bound us together for the past eight months is soon to be severed, and we meet no more in the capacity of instructors and students.

Having completed a lengthened period of arduous study and passed the dreaded ordeal of the "Green Room," you have received, at the hands of the Vice-President of the Board of Trustees, by the authority of the State of New York, the degree of Doctor in Medicine. This is, indeed, a distinguished honor; it is the evidence of high attainments in medical studies; of your qualifications as prospective practitioners, and of your right to be recognized as members of a liberal and highly honorable profession.

In behalf of my brethren of the Faculty I congratulate you on the attainment of this honor, and welcome you as co-laborers in the fields of medical science.

The profession you have chosen is a noble profession, and worthy the devotion of a life-time. It is not a mere mechanic art to be followed simply for the sake of earning a subsistence; nor is it a species of trade governed by the mercenary calculations and the

petty jealousies of commercial traffic. It is a profession founded on the wants of society; a profession rendered necessary by the ills to which humanity is heir. It is a mission of benevolence that has for its object the prevention of disease, the cure of disease, and the amelioration of the condition of man. It is a mission of mercy, and, like the quality of mercy, it is twice blessed; it blesseth both him that gives and him that receives. There is no vocation in life more capable of good, if it is properly practiced; nor is there any that furnishes its followers a more salutary school, both of mental and moral discipline. While it affords abundant exercise for the mind, it, at the same time, has to do with objects that touch the heart, and call forth the finer feelings of our nature. To the faithful physician his profession teaches the most impressive lessons, and conveys the most solemn warnings. It checks his pride, it quickens his charity, and keeps him still constantly reminded of the shortness of life, the certainty of death, and the insufficiency of all mere worldly considerations.

Such is the profession on which you are about to enter. Allow me to describe to you the spirit in which your instructors would have you practice it.

First. *They would have you never forget the deep responsibility of your calling.* The physician is the earthly arbiter of life and death. He is the first and the last friend of frail humanity. He is the guardian of our race in the beginning of life, and the soother of their pangs at its close. The weaknesses of men, carefully concealed from the gaze of the world, are, in time of sickness and misfortune, laid open to his eye. Before him the trappings of greatness are dropped and the gewgaws of fashion laid aside.

In your career as physicians you may be called upon to act in various capacities; you may be the advisers of legal tribunals in the administration of justice; you may be the superintendents of institutions for the sick and the insane; you may be the regulators of sanitary conditions of armies, and fleets, and cities, and nations. And if you are to act in these capacities, if you are to sustain such relations to society, you ought, by every feeling of duty, to be incited to activity and usefulness; you ought to be learned, discreet and wise; you ought to be blameless in your life and character, and, above all, you ought to cherish a deep sense of the responsibility of your profession.

Secondly. *They would not have you cease to be students because you have obtained your diploma.* Medicine is a progressive science, and those who would keep pace with its improvements must cultivate it with fidelity and zeal. You are not at any time to imagine that you have already learned all that is to be known, or even all that is useful; nor are you to suppose that you can ever reach that point at which improvement and progress cease. The constitution of man is constantly undergoing modifications which are brought about by education, by luxury, and by the physical changes of the globe. These constitutional modifications are attended by corresponding modifications in the form of disease. And as new diseases, and new forms of disease are constantly presenting themselves, new modes of treatment must be tried, and new remedies sought for and tested. Thus a ceaseless task is imposed upon you. Enter upon it with determination and vigor. Study carefully everything calculated to make you more efficient practitioners. Accept truth from any and every quarter. Receive it gratefully, as well from the unlettered laborer, as from the learned sage. Newton disdained it not though it came from a goatherd; and Cæsar did not reject it even from a raw recrúit.

Thirdly. *They would have you practice your profession faithfully, earnestly; and in your practice to be ever governed by high feeling of duty and moral obligation.* A desire to practice your profession faithfully and earnestly will prompt you, in cases of difficulty, to seek the advice of some brother practitioner. No two men follow exactly the same line of study, and scarcely any one man is completely master of every disease he may be called upon to treat.

What *you* do not know, some one else, from attentive study, may thoroughly understand. Be not deterred, therefore, by shame or by any desire for gain from asking advice. It is better, under such circumstances, to acknowledge one's ignorance than to tamper with the affairs of life and death. In the practice of your profession you will be brought into the most intimate relations with the families of your patrons. You will be intrusted by them with private matters that are never alluded to outside the family circle. You will be made the depositories of secrets, the disclosure of which would cause unspeakable mortification and distress. Is it necessary to say that professional duty, no less than personal honor, demands, that, as to these things, your lips should be sealed forever? Be true to the interests of your patients, and in your intercourse with them let pru-

dence, and kindness, and delicacy mark your deportment. Listen patiently to the recital of their sufferings, and be not disturbed by their petulance or irritability. It will be yours to staunch the bleeding wound, to quench the fever's fire, yours to mingle in scenes of sorrow, and to watch the progress of loathsome and incurable maladies. But let not your daily familiarity with such things blunt your sensibilities, or beget in you indifference to human suffering. Be not surprised if you sometimes meet with ingratitude, and be ignorantly and undeservedly charged with the commission of errors. Brought in contact, as you will be, with all classes of men, you must expect this; but your consistency and integrity and professional prudence will deprive the barb of its point and the slander of its sting. Be prepared to find that our profession, like other professions, has its trials, its difficulties and its disappointments; but it has its hopes, its enjoyments, and its triumphs too. Your judgment may be sorely puzzled, your professional skill severely taxed, your strength well nigh exhausted in treating and watching a critical case, but all these things will be forgotten in the pleasure experienced by the reflection that pain has been relieved, disease checked, death baffled, and the life of the patient saved.

Fourthly. *They would have you treat your brethren of the profession with courtesy and respect, and protect their reputation as you protect your own.* Manifest a feeling of brotherly kindness towards your professional brethren, and in your course towards them imitate the spirit of the two brothers in this beautiful Arabian legend. "In the olden time, before the temple was built, or King Solomon reigned, the site of the city of Jerusalem was a ploughed field. This field was the joint inheritance of two brothers, and had devolved upon them in the right of their mother. One of the brothers was married and had several children; the other lived a bachelor. They cultivated the field in common, and at harvest time bound up their sheaves, and made of them two equal stacks, which they left upon the field. During the night this thought occurred to the bachelor brother: 'My brother,' said he to himself, 'has a wife and children to maintain, it is not just that our shares should be equal; let me then take a few sheaves from my stack and secretly add them to his; he will not perceive it, and, therefore, cannot refuse them.' This plan he immediately executed. That night the married brother awoke, and said to his wife: 'My brother is young and lives alone, without a companion to assist him in his labors and console

him under his fatigues; it is not right that we should take from the field as many sheaves as he does; let us get up and secretly go and carry a certain number of sheaves to his stack; he will not find it out to-morrow, and, therefore, cannot refuse them; and they did so accordingly. The next day both brothers went to the field, and each was much surprised to find the two stacks alike, and neither could account for it. They pursued the same course for several successive nights, but as each carried to his brother's stack about the same number of sheaves, the stacks still remained equal, till one night both determined to stand sentinel, in order to find out the mystery. The result was that the two brothers met, each bearing sheaves for his brother's stack. And tradition has it, that the ploughed field became the site of Jerusalem, and the spot where the brothers met became the site of King Solomon's temple. This beautiful legend teaches the lesson I wish to convey. Be kind to your professional brethren. Increase their reputation if you can, but do nothing to diminish it. Carry a *dozen* sheaves to your brother's stack, but take not *one* from his.

Lastly. *They would have you be liberal in your principles and tolerant of the opinions of others.* Be not the bigoted devotees of any exclusive theory, nor the blind adherents of any particular party or sect. Do not forget that others have as much right to their opinions as you have to yours; and that in this land, and under this government, there must be no proscription for opinion's sake. Any man who makes medicine a profession, and who grapples successfully with disease, is a physician, and ought to be recognized as such. No matter by what name he may be called, no matter at what school he may have graduated, if he understands his profession, if he relieve human suffering, he is a physician, and is entitled to all the privileges and immunities of a physician. And every practitioner who tries to do good, who labors for the benefit of humanity, is your brother, and is worthy of your respect and your friendship. Away, then, with all intolerance! Away with all sectional bigotry! Away with all party hate! They are a disgrace to our civilization; they are a disgrace to our humanity. Let us look forward to the time when the bickerings of medical sects shall cease, when Allopathy, Homœopathy, Hydropathy, and Eclecticism shall be at peace, when Judah shall no more vex Ephraim, nor Ephraim envy Judah, but when with one heart they shall labor together, and with one voice together shall they sing.

And, now, ladies and gentlemen, I and my colleagues bid you farewell. It is not without reluctance that we sever the tie that has bound us together. We part with mutual esteem, as I trust, and in sincere friendship. In going from us you carry with you our best wishes for your health, happiness and success. Let us hope that you will regard your past instructors as your future friends; that you will cherish a kind feeling for your Alma Mater, and regard her reputation as in some degree identified with your own. And now go forth from this place in sincerity of heart and honesty of purpose. Gird up your loins for the march of life, and put on your armor for the battle of life; and may the God of heaven go with you and bless you? And when, in your professional career, you have been successful in treating disease and relieving human suffering, see to it, that you become not presumptuous, self-conceited or vain. Remember you are but the honored instruments of a Superior Power; and that, after all, "It is God who healeth our diseases, and redeemeth our life from destruction."

TO THE FRIENDS OF THE ECLECTIC MEDICAL COLLEGE.

The advantages afforded for medical instruction in the city of New York are not excelled anywhere on the western continent. Besides the information to be obtained from their professors, students are also entitled to access to the several hospitals and dispensaries, including the emigrant hospitals and other institutions under charge of the State commissioners of emigration.

The principles of medicine and surgery taught at the Eclectic Medical College are those which are generally held by all believers in the Eclectic practice of medicine. They allow and require the fullest investigation, and provide that that investigation shall be untrammeled by any prescribed code or system of ethics; and at the same time enjoin the disuse of every agency, claimed to be remedial, which is liable to inflict permanent injury on the human constitution. The result has already been shown in the introduction of new medicines, generally obtained from indigenous plants, which have been safer, more successful, and in all respects preferable to those embraced in the Materia Medica of the old school. No school of medicine in either hemisphere has discovered and applied so many important new remedies as the Eclectics of North America; and this is attested by the voluntary testimony of the most reputable medical journals

of Europe, as well as by the fact that many of them have been adopted in the practice of "regular" physicians in this country, under pretense of having been discovered by them. Chemical science is rapidly increasing the number, and thus keeping the Eclectic practice, as a healing art and a learned profession, far in advance of all rivals. Instruction in an institution where this practice is fully taught is, therefore, essential to the student who desires in good earnest to be an intelligent and successful practitioner.

It is the aim of the Eclectic Medical College of the city of New York to meet all these requirements. The most careful and critical instruction will be daily given by an accomplished Faculty; the best opportunities afforded for clinical instruction by the Professors, and at the numerous hospitals; the most approved text-books will be used; and, in short, every facility will be furnished at the command of the Institution. No other Eclectic College east of the Allegany Mountains has greater claim upon public confidence.

At the meeting of the Board of Trustees of this Institution, held on the 19th of June, the following resolution was adopted:

Resolved, That female students be educated in the Eclectic Medical College of the city of New York, upon the same conditions as male students.

This is no innovation. It has been done in the Universities of Zurich, in Switzerland, of Hesse and other cities of Europe. It has been the policy generally adopted in Eclectic Medical Colleges in this country, and with the most favorable results. The women who have become physicians have fully equaled their masculine confreres in reputable, successful and remunerative practice. The sentiment of the age is fast determining in favor of female practitioners; and it has become unnecessary to defend their claim to labor in this department of usefulness. For an obsolescent fogyism, unjust discrimination between persons, and narrow professional prejudice, there can be no rightful place in a school of Reformed Medical Practice.

It is essential to the integrity, if not to the existence of the Reformed School, that a College of this character shall be maintained among us. Its prosperity assures the success, the growth, and future standing of the Eclectic practice; the profession and the Institution are intimately allied, and will stand or fall together.

There can be no professional status for Eclectic physicians where no proper facilities for medical instruction are maintained; they will most inevitably, whatever their merits, be universally regarded as

empirics, pretenders, and narrow-minded, illiberal schismatics. Under such conditions, a few years would, and ought to, terminate their existence as a school of medical practice.

Intelligent, far-seeing and enterprising Eclectics will, therefore, concede the vital importance of these facts, and act accordingly. They will rally to the support of an institution of their own faith, and aid it with counsel, patronage and such other benefits as are within their power. Its success is theirs; its prosperity will be their pride and benefit in future time.

The terms of attendance are reasonable enough to make it easy for all to avail themselves of the advantages. The lectures are $100 per term; a matriculation, demonstrator's and hospital fee being additional. In pursuance of the recommendation of the New York State Eclectic Medical Society, the Trustees have authorized the issue of scholarships, enabling the holders to place students in the College at cheaper rates. In this way, $1,000 assures the attendance of a student at every term in perpetuity; $500, a student at every term, or an equivalent attendance for ten years; and $150, a student from matriculation to graduation.

Friends of Eclectic medicine, you are now asked to add your endeavors in this matter. The enterprise is yours; and you must assure its success. Aid in obtaining students; aid more materially, as you can; and give that encouragement and countenance which will warrant hope and confidence.

The Eclectic practice of medicine and Eclectic medical institutions are indissolubly wedded, one and inseparable; the fate of one is the destiny of both.

THE CHARTER OF THE ECLECTIC MEDICAL COLLEGE.

The following is the charter of the College, together with the amendments made by the Legislature of 1869:

LAWS OF 1865, CHAPTER DXLII.

AN ACT to incorporate the Eclectic Medical College of the city of New York.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

SECTION 1. William Moller, William F. Havemeyer, Robert S. Newton, Dennis E. Smith, Oliver Charlick, Albert Havemeyer, Calvin S. Totman, Andrew W. Russell, Alexander Wilder, William W. Hadley, Samuel Tuthill, H. L. Stewart, William P. Strickland, Frank Tabor, Martin Thatcher, and their associates and successors in office, are hereby created a body corporate and politic, by the name of THE ECLECTIC MEDICAL COLLEGE, to be located in the city of New York, for the purpose of promoting medical science and instruction; and in that capacity shall be capable of suing and being sued, pleading and being impleaded, defending and being defended, as any other body corporate, in any of the courts of this State. [*Amended by section* 2 *of chapter* 449 *of the Laws of* 1869, *as will be seen below.*]

§ 2. The said corporation shall constitute the Board of Trustees, with power to fill any vacancy that may occur in the Board; they shall have a common seal, which they may alter or renew at pleasure; they may purchase, hold and possess real and personal estate to the amount of three hundred thousand dollars; they may hold and dispose of property in their corporate capacity, and the funds or property thereof shall not be used for any other purpose than that declared in the first section of this act, and for the establishment and maintenance of a dispensary and hospital in connection with the aforesaid College.

§ 3. The Board of Trustees shall annually appoint a Faculty, to consist of not less than six persons, qualified to instruct students in Anatomy, Physiology, the Institutes and Practice of Medicine and Surgery, Obstetrics, Materia Medica, Therapeutics, Hygiene, Chemistry, Pharmacy, Medical Jurisprudence, and kindred sciences; and also a Board of Censors, not less than three in number, none of whom shall be a professor or instructor in said College, to examine and recommend candidates for the degree of Doctor of Medicine.

No person over sixteen years of age, of good moral character, who has gone through the proper course of preliminary study, and conforming to the usual rules of admission and attendance, shall be excluded from attendance at the terms of instruction at said College. [*As amended by section* 1 *of chapter* 449 *of the Laws of* 1869.]

§ 4. The Board of Trustees are empowered, upon the recommendation of the Faculty and Board of Censors, to grant and confer the degree of Doctor of Medicine upon students of said College; but no such student shall receive such degree unless he shall be twenty-one years of age, and shall have pursued the study of medicine for at least three years under the supervision of a reputable physician, and have attended at least two full terms of instruction in an incorporated medical institution, the last of which terms shall have been held by this College. The said Board of Trustees may also confer said degree, either honorary or ad eundem, in pursuance of the recommendation of the Censors, upon eminent practitioners of medicine and persons holding diplomas from other reputable incorporated medical institutions. [*As amended by section* 1 *of chapter* 449 *of the Laws of* 1869.]

§ 5. The said Trustees, in testimony of the conferment of said degree, shall present to the candidate the diploma of said College duly certifying the same, and attested by the seal of the corporation and the signatures of their president and secretary, a majority of the Board of Censors and of the instructors in said institution. The said diploma shall bear the date of its conferment by the order of the Board of Trustees, and shall entitle the person receiving it to all the rights, privileges, immunities and liabilities of physicians as declared by the laws of this State. [*As amended by section* 1 *of chapter* 449 *of the Laws of* 1869.]

§ 6. [*Repealed by section* 3 *of chapter* 449 *of the Laws of* 1869.]

§ 7. The College shall be subject to the visitation of the Regents of the University, and the Trustees shall report to them on the first day of October in each year.

§ 8. The corporation hereby created shall possess the powers and be subject to the provisions of the eighteenth chapter [of the first part*] of the Revised Statutes, so far as the same are applicable.

§ 9. This act shall take effect immediately.

THE AMENDATORY ACT.

LAWS OF 1869, CHAPTER 449.

AN ACT in relation to the Eclectic Medical College of the city of New York.

Passed April 30th, 1869.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

SECTION 1. Sections three, four and five of chapter five hundred and forty-two of the Laws of eighteen hundred and sixty-five are hereby amended so as to read as follows: [*The sections have been already given.*]

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*Not in the statute of incorporations.

§ 2. The Board of Trustees shall consist of not less than ten nor more than twenty members, as the by-laws shall provide. John F. Cleveland, Asahel N. Cole, Richard B. Connolly, Horatio E. Firth, William W. Hadley, William Moller, P. Albert Morrow, Robert S. Newton, Dennis E. Smith, Samuel Sinclair, Benjamin J. Stowe, Frank Tabor, Samuel Tuthill, C. B. Wheeler, Alexander Wilder, their associates and successors, are hereby declared and constituted the corporation of said College, with the full powers, rank and functions of the same, and may also fill vacancies in their own number. Six of said Trustees, including the President or Vice-President, shall constitute a quorum for the transaction of all business, except so far as the same may relate to the leasing, purchasing, holding and disposing of real estate, all which acts shall require the assent of a majority. In case of the failure of a Trustee to attend meetings of the Board for the space of a year, it shall be lawful to declare his seat vacant.

§ 3. All provisions of chapter five hundred and forty-two of the Laws of eighteen hundred and sixty-five, which are inconsistent with this act, are hereby repealed.

THE ECLECTIC PHILOSOPHY:

An outline of the History, Doctrines and Theurgical Practices of the Philaletheians or Neoplatonists of the first centuries of the Christian era. By ALEXANDER WILDER, M.D.

The name by which Ammonias Saccas, designated himself and his disciples, was that of *Philaletheians*, or, lovers of the truth. They were also sometimes denominated *Analogeticists*, because of their practice of interpreting all sacred legends and narratives, myths and mysteries, by a rule or principle of analogy and correspondence, so that events which were related as having occurred in the external world were regarded as expressing operations and experiences of the human soul. It has, however, been usual to speak of them by the designation of *Neoplatonists* or New Platonists, and, indeed, by this name they are generally known.

Writers have generally fixed the time of the development of the Eclectic theosophical system during the third century of the Christian era. It appears to have had a beginning much earlier, and, indeed, is traced by Diogenes Laertius to an Egyptian prophet or priest named Pot-Amun,* who flourished in the earlier years of the dynasty of the Ptolemies.

The establishment of the Macedonian kingdom in Egypt had been followed by the opening of schools of science and philosophy at the new capitol. Alexandria soon became celebrated as the metropolis of literature; every faith and sect had representatives there. There had always been communication between the sages of Bactria and upper India and the philosophers of the West. The conquests of Alexander, Seleneus and the Romans had increased the acquaintance. The learned men now thronged Alexandria. The Platonists seem to have been most numerous and to have held their ground the longest. Under Philadelphus, Judaism was also planted there, and the Hellenic teachers became rivals of the College of Rabbis of Babylon. The Buddhistic, Vedantic and Magian systems were expounded along with the philosophies of Greece. It was not wonderful that thoughtful men supposed that the strife of words ought to cease, and considered it possible to extract one harmonious system from the various teachings.

* This name is Coptic, and signifies one consecrated to Amun, the god or genius of wisdom.

There did result an approximation of sentiment. Aristobulus, the Jew, declared that the ethics of Aristotle were derived from the Law of Moses; and Philo, after him, attempted to interpret the Pentateuch in accordance with the doctrines of Pythagoras and the Academy. In Josephus, it is said, that, in the book of the Genesis, Moses wrote philosophically—that is, in the figurative style; and the Essenes of Carmel were reproduced in the Therapeutæ of Egypt, who, in turn, were declared by Eusebius to be identical with the Christians, though they actually existed long before the Christian Era. Indeed, in its turn, Christianity also was taught at Alexandria, and underwent an analogous metamorphosis. Pantænus, Athenagoras and Clement were thoroughly instructed in the Platonic philosophy, and comprehended its essential unity with the oriental systems.

Ammonius Saccas, the great teacher, who would seem to have been raised up for the work of reconciling the different systems, was a native of Alexandria, and the son of Christian parents, although associating much with those who adhered to the established religion of the empire. He was a man of rare learning and endowments, of blameless life and amiable disposition. His almost superhuman ken and many excellencies won for him the title of θεοδίδακτος, *theodidaktos*, or God-taught; but he followed the modest example of Pythagoras, and only assumed the title of *philaletheian*, or, lover of the truth.

The first proposition set forth by Ammonius was that of a primeval system of theosophy, a system which was essentially alike, at first, in all countries. Sir William Jones, in his Lecture upon the Persians, propounded this in the following concise form:

"The primeval religion of Iran, if we may rely on the authorities adduced by Mohsani Fani, was that which Newton calls the oldest (and it may justly be called the noblest) of all religions—a firm belief that 'One Supreme God made the world by his power, and continually governed it by his providence; a pious fear, love and adoration of him, and due reverence for parents and aged persons; a fraternal affection for the whole human species, and a compassionate tenderness even for the brute creation.'"

It was his aim and purpose to reconcile all sects and peoples, under this common faith, to induce them to lay aside their contentions and quarrels, and unite together as one family, the children of a common mother. A writer in the Edinburgh Encyclopædia says:

"He adopted the doctrines which were received in Egypt concerning the Universe and the Deity, considered as constituting one great

whole; concerning the eternity of the world, the nature of souls, the empire of Providence, and the government of the world by demons. He also established a system of moral discipline which allowed the people in general to live according to the laws of their country and the dictates of nature; but required the wise to exalt their minds by contemplation, and to mortify the body, so that they might be capable of enjoying the presence and assistance of the demons, and ascending after death to the presence of the Supreme Parent. In order to reconcile the popular religions, and particularly the Christian, with this new system, he made the whole history of the heathen gods an allegory, maintaining that they were only celestial ministers, entitled to an inferior kind of worship; and he acknowledged that Jesus Christ was an excellent man and the friend of God, but alleged that it was not his design entirely to abolish the worship of demons, and that his only intention was to purify the ancient religion."

The ecclesiastical historian, Mosheim, declares that "Ammonius, conceiving that not only the philosophers of Greece, but also all those of the different barbarous nations, were perfectly in unison with each other with regard to every essential point, made it his business so to temper and expound the tenets of all these various sects, as to make it appear they had all of them originated from one and the same source, and all tended to one and the same end."

Again, Mosheim says that Ammonius taught that "the religion of the multitude went hand in hand with philosophy, and with her had shared the fate of being by degrees corrupted and obscured with mere human conceits, superstition and lies: that it ought, therefore, to be brought back to its original purity by purging it of this dross and expounding it upon philosophical principles: and that the whole which Christ had in view was to reinstate and restore to its primitive integrity the Wisdom of the ancients,—to reduce within bounds the universally prevailing dominion of superstition—and in part to correct, and in part to exterminate the various errors that had found their way into the different popular religions."

Ammonius declared that the system of doctrine and moral life, denominated WISDOM, was taught in the Books of Thoth, or Hermes Trismegistus, from which records Pythagoras as well as Plato derived his philosophy. They were regarded by him as being substantially identical with the teachings of the sages of the remote East. As the name *Thoth* means a college or assembly, it is not altogether improbable that the books were so named as being the collected oracles

and doctrines of the sacerdotal fraternity of Memphis. Rabbi Wise has suggested a similar hypothesis in relation to the divine utterances recorded in the Hebrew Scriptures. But the Indian writers assert that during the reign of King Kansa, the Yadus or sacred tribe left India and migrated to the west, carrying the four Vedas with them. There was certainly a great resemblance between the philosophical doctrines and religious customs of the Egyptians and Eastern Buddhists; but whether the Hermetic books and the four Vedas were in any sense identical, is not now known.

It is certain, however, that there was, in every ancient country having claims to civilization, an esoteric doctrine, a system which was designated WISDOM;* and those who were devoted to its prosecution were first denominated sages, or wise men. Afterward, the epithet of *philosophers*, or, lovers of wisdom, was adopted. Pythagoras termed this system a ὁ γνωσις των οντων, the *Gnosis* or knowledge of things that are. Under the noble designation of WISDOM, the ancient teachers, the sages of India, the magians of Persia and Babylon, the seers and prophets of Israel, the hierophants of Egypt and Arabia, and the philosophers of Greece and the West, included all knowledge which they considered as essentially divine; classifying a part as esoteric and the remainder as exterior. The Hebrew Rabbis called the exterior and secular series the *Mercavah*, as being the body or vehicle which contained the higher knowledges. Theology, worship, vaticination, music, astronomy, the healing art, morals and statesmanship were all thus comprised.

Thus Ammonius found his work ready to his hand. His deep spiritual intuition, his extensive learning, his familiarity with the Christian fathers, Pantænus, Clement and Athenagoras, and with the most erudite philosophers of the time, all fitted him for the labor which he performed so thoroughly. He was successful in drawing to his views the greatest scholars and public men of the Roman Em-

* The writings extant in olden times often personified Wisdom as an emanation and associate of the Creator. Thus we have the Hindoo Buddha, the Babylonian Nebo, the Thoth of Memphis, the Hermes of Greece; also the female divinities, Neitha, Metis, Athena and the Gnostic potency Achamoth or Sophia. The Samaritan Pentateuch denominated the book of Genesis, *Akamauth*, or Wisdom, and two remnants of old treatises, the Wisdom of Solomon and the Wisdom of Jesus, relate to the same matter. The book of *Mashalim*—the Discourses or Proverbs of Solomon, thus personifies wisdom as the auxiliary of the Creator:

> "Jehovah possessed me, the beginning of his way,
> The first of his emanations from the time
> I proceeded from antiquity, the beginning—
> The earliest times of the earth.
> When there were no deeps I was born—
> Even when there were no sources of water.
> When he prepared the heavens I was there,
> When he described a circle on the face of the deep,
> There was I with him, Amun,
> And was his delight day by day."

pire, who had little taste for wasting time in dialectic pursuits or superstitious observances. The results of his ministration are perceptible at the present day in every country of the Christian world; every prominent system of doctrine now bearing the marks of his plastic hand. Every ancient philosophy has had its votaries among the moderns; and even Judaism, oldest of them all, has taken upon itself changes which were suggested by the "God-taught" Alexandrian.

Like Orpheus, Pythagoras, Confucius, Socrates, and Jesus himself, Ammonius committed nothing to writing. Instead, he only inculcated moral truths upon his auditors, while he communicated his more important doctrines to persons dnly instructed and disciplined, imposing on them the obligations of secrecy, as was done before him by Zoroaster and Pythagoras, and in the Mysteries. Except a few treatises of his disciples, we have only the declarations of his adversaries from which to ascertain what he actually taught.

This was, however, no exception to the common rule. The older worship, which was preserved in a certain degree in the Mysteries, required an oath from the neophytes or catechumens not to divulge what they had learned. The great Pythagoras divided his teachings into exoteric and esoteric.

The Essenes of Judea and Carmel made similar distinctions, dividing their adherents into neophytes, brethren and the perfect. Pythagoras is said by Iamblichus to have spent a time at Carmel. Jesus himself followed the same custom, declaring to his disciples that to them it was given to know the mysteries of the kingdom of heaven, whereas to the multitude it was not given, and therefore he spoke in parables which had a two-fold meaning. He justified himself in this by the precept:

> "Give not that which is holy to the dogs,
> Neither cast ye your pearls before swine;
> For the swine will trample the pearls under their feet,
> And the dogs will turn and rend you."—*Matthew* vii.

The Magians* of the East received instruction and initiation in the caves and secret lodges of Bactria, and the prophet Daniel is said to have been installed by Nebuchadnezzar as the *Rab Mag*, or chief of the learned order. It would seem from Josephus, Philo and Moses

*The word *magh* signifies a wise or learned man. The Magians were the learned and sacerdotal class among the ancient Persians, corresponding to the Brahmans of Hindostan, the Chaldæans of Babylonia, the Levites of Palestine and the Priests of Egypt. Learning was regarded by the illiterate as endowing its possessors with extraordinary powers; and so, in process of time, *magic*, or the learning of the magians, was regarded as pertaining to wicked and demoniacal agencies. Yet the prophet Daniel, and, if tradition speaks truly, King Solomon, were proficients in their lore; and several of their number repaired to Bethlehem to adore Jesus.

Maimonides, that the Hebrews were also possessors of secret doctrines. It asserted in Josephus that Moses wrote philosophically or esoterically in the book of Genesis, and Philo attempts to give their interior meaning. Maimonides declares as follows:

"Whoever shall find out the true sense of the book of Genesis ought to take care not to divulge it. This is a maxim which all our sages repeat to us, and above all, respecting the work of the six days. If a person should discover the true meaning of it by himself, or by the aid of another, then he ought to be silent; or, if he speaks of it, he ought to speak of it but obscurely, and in an enigmatical manner, as I do myself, leaving the rest to be guessed by those who can understand me."

Abraham, whose name has a Brahmin sound to it, is said to have migrated from Ur, a college or commune of the Casdeans or Magians; and Josephus declares that he taught *mathematics.* In the Pythagorean vocabulary, mathematics mean esoteric knowledge. Moses, the *M'usa,** or great sage of the Israelites, it is said, was instructed in all the wisdom of the Egyptians, thus becoming a priest of their religion, and an initiate or adept in their secret learning. Paul declares the story of Abraham and his two sons to be an allegory pre-figuring the Judaical and Christian systems. Clement, who had been initiated into the Eleusinian mysteries, is said to have declared that the doctrines there taught contained in them the end of all instruction, and had been taken from Moses and the prophets.

With a general similarity in the character of the ancient religious and philosophical views, the course would seem to have been indicated for Ammonius to pursue. Countenanced by Clement and Athenagoras in the church, and by learned men of the Synagogue, the Academy and the Grove, he fulfilled his labor by teaching a common doctrine for all. He had but to propound his instructions "according to the ancient pillars of Hermes, which Plato and Pythagoras knew before, and from them constituted their philosophy." Finding the same sentiments in the prologue of the gospel according to John, he very properly supposed that the purpose of Jesus was to restore the great doctrine of Wisdom in its primitive integrity. The narratives of the Bible and the stories of the gods, he considered to be allegories illustrative of the truth, or else fables to be rejected from the reformed theosophy.

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*In the Sanscrit language, the name of Moses would seem to be derived from the words *maha*, great, *wusa*, a sage or wise man. It would be pronounced *Musa*.

The peculiarity of the Philaletheians, their division into neophytes, initiates and masters, was copied from the Mysteries and philosophical systems. It is recorded that Ammonius obligated his diciples by oath not to divulge his higher doctrines, except to those who had been thoroughly instructed and exercised. How far this condition was proper is easily perceived when we contemplate the peculiar mystical, profound character of such of the doctrines as have escaped from the crypt.

The Eclectic system was characterized by three distinct features, namely: Its theory of the Godhead, its doctrine of the human soul, and its theurgy. Modern writers have commented upon the peculiar views of the New Platonists upon these subjects, seldom representing them correctly, even if this was desired or intended. Besides, the immense difference in the nature of ancient and modern learning has unfitted, to a great degree, students of the later centuries for apprehending properly the predominating elements of the Philaletheian theosophy. The enthusiasm which now-a-days is often considered as piety, would hardly be competent to explore or have anything in common with the enthusiasm of the old mystic philosophers.

The anterior idea of the New Platonists was that of a single Supreme Essence. This is the *Diu*, or "Lord of Heaven," of the Aryan nations, identical with the Ιαω, *Iao* of the Chaldeans and Hebrews, the *Iabe* of the Samaritans, the *Tiu* or Tuisco of the Northmen, the *Duw* of the Britons, the Zeus of the Thracians, and Ju-piter of the Romans. He was the Being, the *Facit*, one and supreme. From him all other beings proceeded by *emanation*. The moderns appear to have substituted for this the theory of *evolution*. Perhaps a wiser sage will combine the two hypotheses. These deity-names often seem to have been invented with little or no reference to etymological signification, but principally because of some mystical meaning attached to the numerical signification of the specific letters employed in their orthography.

All the old philosophies contained the doctrine that θεοι, *theoi*, gods or disposers, angels, demons, and other spiritual agencies, emanated from the Supreme being. Ammonius accepted the doctrine of the Books of Hermes, that from the Divine All proceeded the Divine Wisdom or Amun; that from Wisdom proceeded the Demiurge or Creator; and from the Creator, the subordinate spiritual beings; the world and its peoples being the last. The first is con-

tained in the second, the first and second in the third, and so on through the entire series.*

The worship of these subordinate beings constituted the *idolatry* charged upon the ancients, an imputation not deserved by the philosophers who recognized but one Supreme Being, and professed to understand the ὑπόνοια, *hyponia* or under-meaning, by which angels, demons and heroes were to be regarded. Epicurus said, "The gods exist, but they are not what the οἱ πολλοι, or common multitude, suppose them to be. He is not an infidel or atheist who denies the existence of the gods whom the multitude worship, but he is such who fastens on these gods the opinions of the multitude."

Aristotle declares: "The divine essence pervades the whole world of nature; what are styled *the gods* are only the first principles. The myths and stories were devised to make the religious systems intelligible and attractive to the people, who otherwise would not give them any regard or veneration." Thus the stories of Jupiter, the siege of Troy, the wanderings of Ulysses, the adventures of Hercules, were but tales and fables, which had a deep under-meaning. "All men yearn after the gods," says Homer. All the old worships indicate the existence of a single theosophy anterior to them. "The

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*Akin to this is the doctrine of the Jewish Kabala, which was taught by the Pharsi or Pharisees, who probably borrowed it, as their sectarian designation would seem to indicate, from the magians of Persia. It is substantially embodied in the following synopsis.

The Divine Being is the All, the Source of all existence, the Infinite; and He cannot be known. The universe reveals Him, and subsists by Him. At the beginning, His effulgence went forth everywhere. Eventually He retired within Himself, and so formed around Him a vacant space. Into this He transmitted His first emanation, a Ray, containing in it the generative and conceptive power, and hence the name IE, or Jah. This, in its turn, produced the *tikkun*, the *pattern* or idea of form; and in this emanation, which also contained the male and female, or generative and conceptive potencies, were the three primitive forces of Light, Spirit and Life. This Tikkun is united to the Ray, or first emanation, and pervaded by it; and by that union is also in perpetual communication with the infinite source. It is the pattern, the primitive man, the Adam Kadmon, the *macrocosm* of Pythagoras and other philosophers. From it proceeded the *Sephiroth*—ten emanations, which are not individual existences, but qualities, and are named as follows: the Crown, Wisdom, Magnificence, Prudence, Severity, Beauty, Conquest, Glory, Foundation, Dominion. From the ten Sephiroth in turn emanated the four worlds, each proceeding out of the one immediately above it, and the lower one enveloping its superior. These worlds become less pure as they descend in the scale, the lowest in all being the material world. But there is nothing purely material; all subsist through God; the Ray, His first emanation, penetrating through all creations, being the life of life; therefore all is divine. The first world, *Aziluth*, is peopled by the purest emanations; the second, *Beriah*, by a lower order, the servants of the former; the third, *Jezirah*, by the cherubim and seraphim, the Elohim and B'ni Elohim. The fourth world, *Asiah*, is inhabited by the Klipputh, of whom Belial is chief. The human soul derives its elements from the four worlds, spiritual life, intellect, the passions, and corporeal appetites. A conflict having arisen between the inhabitants of the fourth world, Asiah, and the higher emanations, evil and disorder have thereby come to exist. Mankind having sinned in their first parent, from whose soul every human soul is an emanation, they are exiled into material bodies to expiate that sin and become proficient in goodness. They will continue to be born in new bodies, one after another, till they become sufficiently pure to enter a higher form of existence. This was called the ἀναστασις, *anastasis*, or continued existence; also the μετεμψυχωσις, *metempsychosis*, or changes of the soul.

In the epistles of Paul we find these doctrines inculcated more or less among the churches. Hence such passages as these: "Ye were dead in errors and sins; ye walked according to the *æon* of this world, according to the *archon* that has the domination of the air." "We wrestle not against flesh and blood, but against the dominations, against potencies, against the lords of darkness, and against the mischievousness of spirits in the empyrean regions." But Paul was evidently hostile to the effort to blend his gospel with the gnostic ideas of the Hebrew-Egyptian school, as seems to have been attempted at Ephesus; and accordingly wrote to Timothy, his favorite disciple, "Keep safe the precious charge intrusted to thee; and reject the new doctrines and the antagonistic principles of the gnosis falsely so-called, of which some have made profession and gone astray from the faith."

key that is to open one must open all; otherwise it cannot be the right key."

The Eclectics or Philaletheians accepted substantially these doctrines, the principal difference being in names. They taught, like all the old sages, that all beings and things proceeded from the Supreme Deity in series, or discrete degrees of emanation. There are four orders of existence, says Iamblichus—gods, demons, heroes and souls. This theosophy would explain the declaration of Paul, that "all things came out from God," and that assertion of Jesus, that "the Kingdom of God is within." It was not an attempt to oppose Christianity, or resuscitate paganism, as Lloyd, Mosheim, Kingsley and others assert; but to extract from all their most valuable treasures, and, not resting there, to make new investigations. Of course there was no *avatar*.

Plotinus, a native of Lycopolis, in Egypt, was the first great expositor of the Neo-Platonic system. In the year 233, being then twenty-eight years of age, he began the study of Plato and Aristotle at Alexandria, and shortly afterward fell in with the celebrated work of Philostratus, the Life of Apollonius of Tyana, together with the writings of Plutarch and Apuleius. While in the midst of such studies, he became acquainted with Ammonius Saccas. The lessons of that great teacher found in him a worthy disciple. What Plato was to Socrates, and the apostle John to the head of the Christian faith, Plotinus became to the God-taught Ammonius. To Plotinus, Origenes and Longinus we are indebted for what is known of the Philaletheian system. They were duly instructed, initiated and intrusted with the interior doctrines. Of Origenes little has been preserved. Longinus traveled for many years, and finally took up his abode at Palmyra. For some time he was the counselor of the celebrated Queen Zenobia. After the conquest of that city, she sought to propitiate the Emperor Aurelian by laying the blame of her action upon Longinus, who was accordingly put to death.

The Jew Malek, commonly known as the distinguished author Porphyry, was a disciple of Plotinus, and collected the works of his master. He also wrote several treatises, giving an allegorical interpretation to parts of the writings of Homer. Iamblichus also wrote a work upon the doctrines taught in the Mysteries, and likewise a biography of Pythagoras. The latter so closely resembles the life of Jesus that it may be taken for a travesty. Diogenes Laertius and Plutarch relate the history of Plato according to a similar style.

Plotinus, when thirty-nine years old, accompanied the army of the Roman Emperor, Gordian, to the East, for the purpose of being instructed directly by the sages of Bactria and India. But the Emperor was killed on the way, and the philosopher narrowly escaped with his life. He returned home and afterward removed to Rome, where he instituted a school for instruction in philosophy by conversations. It was frequented by men and women of all ages and ranks. The emperor and empress held him in high esteem, and his disciples venerated him almost as a superior being. One of them, the Senator Rogentianus, emancipated his slaves and resigned his dignities that he might devote himself to the cultivation of wisdom. So high was the reputation of Plotinus, that he was continually chosen as a guardian for orphan children, and intrusted with the care of large estates. He lived at Rome twenty-eight years, making not a single enemy among those whom he had served.

He taught that the gnosis, or knowledge, has three degrees—opinion, science and illumination. "The means or instrument of the first is sense, or perception; of the second, dialectics; of the third, intuition. To the last reason is subordinate; it is absolute knowledge, founded on the identification of the mind with the object known."

The system, it must be acknowledged, provided for the highest spiritual development. Plutarch says, "The end of the Egyptian rites and mysteries was the knowledge of the One God, who is the Lord of all things, and to be discerned only of the soul. Their theosophy had two meanings—the one holy and symbolical, and the other popular and literal. The figures of animals which abounded in their temples, and which they were supposed to worship, were only so many hieroglyphics to represent the divine qualities." These mysteries, it will be remarked, are said to have constituted the basis of the Eclectic system.

The human soul being regarded as the offspring or emanation of the Deity, the whole scope of the Philalethian system was directed to the development and perfecting of its divine faculties. Plotinus taught that there was in the soul a returning impulse, love, which attracted it inward toward its origin and centre, the Eternal Good. While the person who does not understand how the soul contains the Beautiful within itself will seek by laborious effort to realize beauty without, the wise man recognizes it within himself, develops the idea by withdrawal into himself, concentrating his attention, and so float-

ing upward toward the divine fountain, the stream of which flows within him. The Infinite is not known through the reason, which distinguishes and defines, but by a faculty superior to reason, by entering upon a state in which the individual, so to speak, ceases to be his finite self, in which state divine essence is communicated to him. This is *ecstasy*, which Plotinus defines to be the liberation of the mind from its finite consciousness, becoming one and identified with the Infinite. This sublime condition is not of permanent duration, but is enjoyed at intervals, and its attainment is facilitated and repeated by abstinence, which tends to purify and elevate the mind. The agencies to accomplish it are as follows: Love of beauty in the poet, devotion to science in the philosopher, love and prayer in the devout.

Plotinus professes to have realized this sublime ecstasy six times; and Porphyry declares that Apollonius of Tyana was four times thus united to the Deity in his interior life, and he himself once when over sixty years old.*

The efflux from the Divine Being was imparted to the human spirit in unreserved abundance, accomplishing for the soul a union with the divine, and enabling it while in the body to be partaker of the life which is not of the body. Thus, says Iamblichus, the soul, in contemplating blessed spectacles, acquires another life, operates according to another energy, and is thus rightly considered as on longer ranking in the common order of mankind. Frequently, likewise, abandoning her own life, she exchanges it for the most felicitous energy of celestial beings. By supplicating, we are led to the object of supplication; we acquire its similitude from this intimacy, and gradually attain divine perfection. Being thus adapted to participate in the divine nature, we possess God himself.

This is a transcript from the very words of Plato: "Prayer is the ardent turning of the soul toward God; not to ask any particular good, but for good itself—for the Universal supreme Good. We often mistake what is pernicious and dangerous for what is useful and desirable. Therefore remain silent in the presence of the divine ones, till they remove the clouds from thy eyes, and enable thee to see by the light which issues from themselves, not what appears as good to thee, but what is really good."

Plotinus also taught that every person has the interior sense or faculty denominated *intuition*, or spiritual instinct, which is devel-

*Kingsley, in the 25th chapter of "Hypatia," and Bulwer in the 4th book of "Zoroni," treat of this same psychological or hypnotic condition.

oped by proper cultivation, and enables to perceive and apprehend actual and absolute fact more perfectly than can be done through the mere exercising of the reasoning powers and outward sensibility. It is a projecting of the consciousness from the subjective into the objective, so that what pertains to the selfhood of the person—what is in the mind and heart—is made to appear as constituting the things which may be seen around him. In this way, dreams are constituted; we see and converse with persons around us, and observe objects and events—all of them being but the creation of our own mind, or the reflection from our mind into a medium analagous to a surrounding mirror. Persons have detected themselves, while awake, seemingly in earnest conversation with an invisible being, but presently perceived that it was only a talking with themselves, or a process of ratiocination, which was really subjective, while it seemed to be objective.

"There is a faculty of the human mind," says Iamblichus, "which is superior to all which is born or begotten. Through it we are enabled to attain union with the superior intelligences, of being transported beyond the scenes and arrangements of this world, and of partaking the higher life and peculiar powers of the heavenly ones. By this faculty we are made free from the domination of Fate, and are made, so to speak, the arbiters of our own destinies. For, when the more excellent parts of us become filled with energy, and the soul is elevated to natures loftier than itself, it becomes separated from those conditions which keep it under the dominion of the present every-day life of the world, exchanges the present for another life, and abandons the conventional habits belonging to the external order of things, to give and mingle itself with that order which pertains to the higher life."

We begin with instinct; the end is omniscience. It is as a direct beholding; what Schelling denominates a realization of the identity of subject and object in the individual, which blends him with that identity of subject and object called Deity; so that, transported out of himself, so to speak, he thinks divine thoughts, views all things from their highest point of view, and, to use an expression of Emerson, "becomes recipient of the soul of the world." Plato himself expressed the idea more concisely. "The light and spirit of the Deity are as wings to the soul, raising it into communion with himself and above the earth, with which the mind of man is prone to bemire itself." "To be like God is to be holy, just and wise. This

is the end for which man was born, and should be his aim in the pursuit of knowledge."

The power of vaticination, popularly denominated "second sight," appears to have been possessed by these men. Apollonius asserts his own possession of the faculty as follows:

"I can see the present and the future in a clear mirror. The sage need not wait for the vapors of the earth and the corruption of the air to foresee plagues and fevers; he must know them later than God, but earlier than the people. The *theoi* or gods see the future; common men, the present; sages, that which is about to take place. My peculiar abstemious mode of life produces such an acuteness of the senses, or creates some other faculty, so that the greatest and most remarkable things may be performed."

This peculiar gift or faculty is probably to be explained as follows:

There is what may be termed *spiritual photography.* The soul is the camera in which facts and events, future, past, and present, are alike fixed; and the mind becomes conscious of them. Beyond our every-day world of limits, all is as one day or state—the past and future comprised in the present. Probably this is the "great day," the "last day," the "day of the Lord," of the Bible writers—the day into which every one passes by death or *ecstasis.* Then the soul is freed from the constraint of the body, and its nobler part is united to higher nature and becomes partaker in the wisdom and foreknowledge of the higher beings.

The disciples of Plotinus ascribed to him miraculous power. They affirmed that he could read the secret thoughts of men; when Porphyry was contemplating suicide he perceived it without having received any outward intimation. A robbery was committed in the house and he called the domestics together and pointed out the guilty one. He did not discountenance the popular religious worship; but when one of his friends asked him to attend at the public services, he answered: "It is for them to come to me."

Akin to this was the sentiment of Socrates. He had been condemned to death on the charge of atheism, because he had not been duly initiated into the Eleusinian Mysteries. He drank the draught of venomous *Conium*, and, lying down to die, he uttered the celebrated words: "Crito, we now owe the cock to Asclepias." On the eighth day of the celebration of the Mysteries, just before the whole initiation is complete, the *mysta* or candidate offered a cock to the god of

healing in acknowledgment that his own ills were now removed. The drama of the mysteries were representation in symbol of the experiences of life; and Socrates, proposing to offer the cock, thereby testified that he was undergoing initiation, and about to become an *epopt.* He spoke truly.

When Jesus declared that the son of man is lord of the Sabbath, he uttered the very idea which Plotinus repeated in demanding that the sacrifices should come to him.

Plotinus, Iamblichus and Apollonius of Tyana, are said to have possessed miraculous powers of prediction and healing. The former art had been cultivated by the Essenes and *B'ni Nabim* among the Hebrews, as well as at the pagan oracles. "I am not a prophet, nor the son of a prophet," said Amos, when accused of predicting untoward things, "but the Lord called me." Apollonius is declared, by his biographer, Philostratus, to have healed the sick and raised the dead, and others of those days were reported to have done extraordinary cures. "That which especially distinguished the fraternity," said a German writer, "was their marvellous knowledge of all the resources of medical art. They wrought not by charms, but by simples." Perhaps often their skill in healing won them the reputation of performing miracles.

It is more than probable, however, that they employed the agency so commonly known as animal magnetism. It was usual to exercise it by gently placing the hand on or near the diseased part, stroking it gently and uttering a chant or incantation. It has become fashionable to declaim about these practices as charlatanism, but they appear to have existed in all ages and among different peoples. Demons and diseases were supposed anciently to be overcome by sacred chanting.

It is apparent that these mystics were proficient in the art of medicine, and familiar with herbal science; bnt their discoveries were lost through the destruction of the Alexandrian library. Perhaps, but for this, there would have been an Eclectic school of medicine in the world, the offspring of the knowledge of these "wise men from the East."* Instead of it, however, they left an alchemy, or mystical

*A French writer cited in the *Journal of Psychological Medicine*, imputed to the New Platonists the use of charms and thaumatnegical arts, in the treatment of the sick. But Plotinus, in his treatise against the Gnostics, entirely acquits his associates of this accusation. He says:

"They (the Gnostics) likewise pretend that they can expel disease. If they propose to accomplish this by temperance and an orderly mode of life, they speak rightly, and like philosophers. But now, when they assert that diseases are demons, and that they are able to expel these by words, and proclaim that they have this power, they may, perhaps, appear to be more worthy of reverence to the multitude, who admire the powers of magicians; but they will not induce intelligent persons to believe that diseases have not their causes from excessive labors, or satiety, or insufficient nour-

philosophy, which subsequent inquirers, construing too literally, lost sight of the allegorical meaning, and, prosecuting the matter further, brought into existence the science of chemistry.

Iamblichus transcended the other Eclectics, and added to their theosophy the doctrine of a theurgy. He taught that the individual might be elevated to association with spiritual and celestial beings, the possession of their knowledge and will, and the ability to control as a god inferior natures. He appears to have been thoroughly familiar with the phenomena of the mesmeric trance and clairvoyance, and describes them with great exactness. He taught that the idea of God was imprinted in the soul, not by reason or ratiocination, but by a spiritual conception which is eternal and cotemporary with the soul. The different orders of spiritual beings are mediators between God and man. Their prescience extends over everything and fills everything capable of it. They also give intimations during the waking hours, and impart to the soul the power of a wider perception of things, the gift of healing, the faculty of discovering arts and new truths. There are different degrees of this inspiration; sometimes it is possessed in the highest, sometimes in an intermediate, and sometimes only in the lowest degree.

Prayer, abstinence—in some instances amounting to asceticism—and contemplation are among the means of discipline required for the theurgist. Iamblichus discourses on prayer with all the earnestness of a Christian divine. The supernaturalism, however repugnant to the popular idea, is no more than is set forth in the Bible, and was also peculiar to the Jewish Essenes, who are said by Pliny to have been established on the shores of the Dead Sea *per seculorum millia*, for thousands of ages. The legitimate effect was not to develop the practice of thaumaturgy, sorcery, necromancy, and fortune-telling, but the higher faculties and sentiments. Bulwer, who appears to have been a thorough student of Neo-Platonism and kindred topics, practically depicts its operation and influence:

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ishment, or putrefaction, and, in short, from mutations which have either an external or an internal origin. This, however, is manifest from the manner of the cure of diseases. For disease is deduced downward so as to pass away externally through a flux of the bowels, or the operation of medicine. Disease is also cured by letting off blood and fasting.

"Perhaps, however, they will say that the demon is then hungry, and the medicine causes him to waste away; but that sometimes is suddenly obtained through the demon departing, or remaining within the body. But, if this is effected while the demon still remains within, why, while he is within, is the person no longer diseased? And, if he departs, what is the cause of his departure? For what did he suffer? Is it because he was nourished by the disease? The disease, then, was something different from the demon.

"In the next place, if the demon enters without any cause, why is not the body always diseased? But, if he enters when the cause of the disease is present, why is the demon necessary in order to the body becoming diseased? The cause is sufficient to produce the fever. The idea is ridiculous, that, as soon as the cause of the disease exists, the demon should immediately be present, as if subsisting in conjunction with the cause."

"At last from this dimness, upon some eyes, the light broke; but think not that to those over whom the Origin of Evil held a sway, that dawning was vouchsafed. It could be given then, as now, only to the purest ecstasies of imagination and intellect, undistracted by the cares of a vulgar life, the appetites of the common clay. Far from descending to the assistance of a fiend, theirs was but the august ambition to approach nearer to the Fount of Good; the more they emancipated themselves from this Limbo of the planets, the more they were penetrated by the splendor and beneficence of God. And if they sought, and at last discovered, how to the eye of the spirit all the subtiler modifications of being and of matter might be made apparent; if they discovered how, for the wings of the spirit, all space might be annihilated; and while the body stood heavy and solid here, the freed *Idea* might wander from star to star: if such discoveries became in truth their own, the sublimest luxury of their knowledge was but this—to wonder, to venerate, and adore!"

Proclus was the last great teacher of the Eclectic school. His writings are, if possible, more thorough and elaborate than those of his predecessors. He refines upon the theurgy of Iamblichus, and as that writer extols prayer as a means of spiritual attainment, he extols faith.

According to Proclus, the doctrines of Orpheus were the origin of the systems afterward promulgated. He says: "What Orpheus delivered in hidden allegories, Pythagoras learned when he was initiated into the Orphic mysteries; and Plato next received a perfect knowledge of them from Orphic and Pythagorean writings."

He also repeats the words of Aristotle: "There are many inferior *theoi* but only one Mover. All that is said concerning the human shape and attributes of these deities is mere fiction, invented to instruct the common people and secure their obedience to wholesome laws. But the First Principle is neither fire, nor earth, nor water, nor any thing that is the object of sense. A spiritual substance is the cause of the Universe, and the source of all order, all beauty, all the motions and all the forms which are so much admired in it. All must be led up to this one primitive substance, which governs in subordination to the First. This is the general doctrine of the ancients, which has, happily, escaped the wreck of truth amid the rocks of popular errors and poetic fables."

"After death, the soul continueth in the aërial body till it is entirely purified from all angry and voluptuous passions; then doth it

put off, by a second dying, the aërial body as it did the earthly one. Wherefore, the ancients say that there is another celestial body always joined with the soul, which is immortal, luminous and star-like."

Proclus elaborated the entire theosophy and theurgy of his predecessors into a complete system. Like the Rabbis and Gnostics, he cherished a perfect reverence for the *Abraxas*, the venerable name, or Word; and he believed with Iamblichus in the attaining of a divine power, which, overcoming the mundane life, rendered the indidividual an organ of the Deity, speaking a wisdom which he did not comprehend, and becoming the utterance of a superior will. He even supposed that there might be mystic pass-words that would carry a person from one order of spiritual beings to another, higher and higher, till he arrived at the absolute divine. Faith, he inculcated, would make one the possessor of this talisman.

The Eclectics flourished for several centuries, and comprised within their ranks the ablest and most learned men of their time. Their doctrines were adopted by pagans and Christians in Asia and Europe, and for a season everything seemed favorable for a general fusion of religious belief. The Emperors Alexander Severus and Julian embraced them. Their predominating influence upon religious ideas excited the jealousy of the Christians of Alexandria. Hypatia, the celebrated lecturer, the teacher of the bishop Synesius, and daughter of Theon, was set upon by a mob, headed by an ecclesiastic, dragged to a church and brutally murdered. The school was removed to Athens, and finally closed by the Emperor Justinian. Its professors were compelled to escape to Persia, where they made many disciples.

The influence of these great teachers existed through all the subsequent centuries. At different periods of the mediæval age, arose remarkable men, who propounded one or other of the cardinal Hermetic doctrines. The Mystics and Quietists, Sufis and theosophers of every grade draw liberally on the treasury which the Philaletheian Neo-Platonists had filled so liberally. Emanual Swedenborg and Jacob Behmen do not seem to have been exceptions; and Madame Guyon would have made a glorious counterpart of Iamblichus. Hardly a religious creed exists in the Christian world which has not thus been enriched; and literature has thence derived its choicest embellishment.

As ought to be expected of persons holding so refined a system of doctrines, their characters corresponded with it most beautifully. Plotinus was everywhere honored for his probity, Apollonius for his almost preternatural purity of manners, Ammonius for his amiableness, Iamblichus for his piety, and Proclus for his serene temper. Their moral code is well depicted in this language of M. Matter, in his Treatise on Gnosticism:

"The morality which the Gnosis prescribed for man answered perfectly to his condition. To supply the body with what it needs, and to restrict it in everything superfluous; to nourish the spirit with whatever can enlighten it, strengthen it, and render it like God, of whom it is the image; to make it one with God, of whom it is an emanation—this is that morality. It is that of Platonism, and it is that of Christianity."

Whatever the apparent demerits of the Philaletheian doctrines, there must be general approval of the great underlying ideas of Human Brotherhood and perfectibility. Their proper aim was the complete establishment of the rule of peace on earth, instead of that dominion of the sword which had served in former ages, and which was destined, in subsequent centuries, to array millions of human beings in mortal warfare against each other, and depopulate countries and districts in the name of religion.

ALCHEMY, OR THE HERMETIC PHILOSOPHY.

An endeavor to elucidate its true character, from the teachings of its own adepts. The Alcahest, the Philosopher's Stone and the Elixir Vitæ defined; being the views promulgated by Major General E. A. Hitchcock of the U. S. Army. By ALEXANDER WILDER, M.D.

A century has passed since the compilers of the French Encyclopædia infused skepticism into the blood of the civilized world, and made it disreputable to believe in the actual existence of anything that cannot be tested in crucibles or demonstrated by critical reasoning. Even now, it requires candor as well as courage to venture to treat upon a subject which has been for many years discarded and contemned, because it has not been well or correctly understood. The person must be bold who accounts the Hermetic philosophy to be other than a pretense of science, and, so believing, demands for its enunciation a patient hearing. Yet its professors were once the princes of learned investigation, and heroes among common men. Besides, nothing is to be despised which men have reverently believed; and disdain for the earnest convictions of others is, itself, the token of ignorance, and of an ungenerous mind.

The opinion has become almost universal that Alchemy was a pretended science, by which gold and silver were to be produced by transmutation of the elements of the baser metals; and its professors are at this day regarded as the dupes of imposture, and as having been themselves impostors and charlatans. In these classes they are placed by the writers of books; and the prejudice has been so long cherished, that, for the present, there is small ground for hope of its uprooting. The peculiar language employed by the alchemists is now commonly denominated "jargon," and this epithet appears to be conclusive logic with those whose convictions are chiefly produced by the employment of opprobrious names.

Yet a candid and critical examination of the Hermetic writers, we think, will entirely disabuse the mind of any intelligent person. It is plain enough, that their directions in relation to transmuting metals are scarcely at all to be connected with any known manipulations now known as *chemical*. Yet it would be presumptuous to vilify such men as Roger Bacon, Boerhave, and Van Helmont, as ignorant, or to accuse them of imposture. We propose, therefore, in this essay, to direct inquiry in another quarter for the purpose of

indicating what was really the scope of the science or philosophy, formerly extant under the name of ALCHEMY.

The first appearance of this system is not known. Some writers declare that Adam was the first adept; others, that the "sons of God," spoken of in the sixth chapter of Genesis, who took wives of the daughters of men, communicated to them the knowledge of the strange mysteries of the created world. Moses and Solomon are also assigned the first rank in the knowledge of Hermetic learning—the former, because he has learned "all the wisdom of the Egyptians;" and the other, as being the wisest of men, and able, by his mystic seal and pass-word, to command spirits. We find expressions in ancient writers indicating the existence of such science. "Its cradle," says Olaus Borrichius, "is to be sought in the most distant times." Clement of Alexandria makes mention of it. Democritus of Abdera was also a Hermetic philosopher. But it is hardly necessary to quote at greater length.

Under the old title of *magic*, a Persian term signifying knowledge, was included every science, natural or metaphysical, which was cultivated. The sacerdotal and learned class were styled magians or magicians. We find them also called Chaldeans. The patriarch Abraham, it will be remembered, was said to be a Chaldean or Casdean; and according to Josephus, he taught *mathematics*, or esoteric knowledge in Egypt. Astral literature was also cultivated as a part of the ancient learning; and the magian was probably an astrologer also.

Alchemy, however, can hardly be regarded as a part of the old learning of the Magians and Chaldeans. It seems rather to have succeeded to their inheritance. William Godwin, the author of the celebrated treatise on "Political Justice," and father of the late Mrs. Shelley, has given an outline of its earlier history.

"Among the different pursuits," says he, "which engaged the curiosity of active minds in these unenlightened ages, was that of the transmutation of the ordinary metals into gold and silver. This art, though not properly of necromantic nature, was, however, elevated by its professors, by means of an imaginary connection between it and astrology, and even between it and an intercourse with invisible spirits. They believed that their investigations could not be successfully prosecuted but under favorable aspects of the planets, and that it was even indispensable to them to obtain supernatural aid." "The first authentic record on this subject is an edict of Dioclesian,

about three hundred years after Christ, ordering a diligent search to be made in Egypt for all the ancient books which treated of the art of making gold and silver, that they might, without distinction, be consigned to the flames. This edict, however, necessarily presumes a certain antiquity to the pursuit; and fabulous history has recorded Solomon, Pythagoras and Hermes among its distinguished votaries.*

"From this period the study seems to have slept till it was revived among the Arabians, after a lapse of five or six hundred years. It is well known, however, how eagerly it was cultivated in various countries of the world after it was divulged by Geber. Men of the most wonderful talents devoted their lives to the investigation, and in multiplied instances the discovery was said to have been accomplished."

Two noticeable circumstances are indicated in this brief sketch: that alchemy had pretensions to a great antiquity, and that it was to be traced to those countries where the new Platonic philosophy had flourished. Added to these is the remarkable fact, that the students in alchemy professed to be disciples of the same great masters, of Apollonius, Plotinus, Porphyry and Iamblichus, and to believe the same doctrines. As the mythical personage, Hermes,† "the three

* The study of alchemy, whatever it was, was even more universal than the several writers upon it appear to have known, and was always the auxiliary, if not identical, with the occult sciences of magic, necromancy and astrology, probably from the same fact that they were originally but forms of a spiritualism which was generally extant in all ages of human history. In October, 1868, at the meeting of the Oriental Society, at New Haven, Connecticut, Rev. William A. P. Martin, of Peking, read a paper on the "Study of Alchemy in China." After tracing briefly the connection between alchemy and chemistry, the paper proceeded to its main object, namely, to demonstrate that the origin of European alchemy was to be sought in China. In support of this view the following considerations were adduced, and illustrated by citations from Chinese and other works:

1. The study of alchemy had been in full vigor in China for at least six centuries before it made its appearance in Europe. It did not appear in Europe until the fourth century, when intercourse with the far East had become somewhat frequent. It appeared first at Byzantium and Alexandria, where the commerce of the East chiefly centered, and was subsequently revived in Europe by the Saracens, whose most famous school of alchemy was at Bagdad, where intercourse with Eastern Asia was frequent.
2. The objects of pursuit in both schools were identical, and in either case twofold—immortality and gold. In Europe the former was the less prominent, because the people, being in possession of Christianity, had a vivid faith in a future life to satisfy their longings on that head.
3. In either school there were two elixirs, the greater and the less, and the properties ascribed to them closely correspond.
4. The principles underlying both systems are identical—the composite nature of the metas and their vegetation from a seminal germ. Indeed, the characters *tsing* for the germ, and *t'as* for the matrix, which constantly occur in the writings of Chinese alchemists, might be taken for the translation of terms in the vocabulary of the Western school, if their higher antiquity did not forbid the hypothesis.
5. The ends in view being the same, the means by which they were pursued were nearly identical—mercury and lead being as conspicuous in the laboratories of the East as mercury and sulphur were in those of the West. It is of less significance to add that many other substances were common to both schools than to note the remarkable coincidence that in Chinese, as in European alchemy, the names of the two principal re-agents are used in a mystical sense.
6. Both schools, or at least individuals in both schools, held the doctrine of a cycle of changes, in the course of which the precious metals revert to their baser elements.
7. Both are closely interwoven with astrology.
8. Both led to the practice of magical arts and unbounded chartlatanism.
9. Both deal in language of equal extravagance! and the style of European alchemists, so unlike the sobriety of thought characteristic of the Western mind, would, if considered alone, give us no very uncertain indication of its origin in the fervid fancy of the Orient.

† Hermes Trismegistus is the celebrated personage of Egyptian and Phœnician story, to whom is attributed the preservation of the remains of the old religion. Several treatises are imputed to him, among them the Smaragdine Tablet, which Avicenna declares was taken from his dead body at Hebron, by Sarah, the wife of the patriarch Abraham. The following is a translation:

times greatest," whom we suppose, from his Egyptian name *Thoth* (an assembly), to be but the embodiment of the collective voice of the sacerdotal caste of Egypt, is regarded by alchemists to be one of their original teachers, it requires no great stretch of imagination to presume that there was a close relationship between the two, and perhaps an actual identity. Certain is it that the mystic, the philosopher, the so-called magician, the astrologist and the alchemist, during the middle ages, appear to have occupied the same field of thought, to have held very similar opinions, and to have employed a form of speech very similar, although differing in technology.

Snidas, in his Lexicon, thus expounds the Golden Fleece: "Δέρας (deras)—the golden fleece, which Jason and the Argonants, after a voyage through the Black Sea to Colchis, took, together with Medea, daughter of Ætes, the King. But this is not what the poets represent, but a treatise written on skins (δέρμασι), teaching how gold might be prepared by chemistry. Probably it was called golden by those who lived at that time, on account of its great importance."

THE THREE ALCHEMIC AGENTS.

The agents sought for and praised by all true alchemists were three, namely: first, the Philosopher's Stone, by which metals were said to be transmuted; second, the Alcahest, or universal solvent; and third, the *Elixir Vitæ*, by which human life was capable of being prolonged indefinitely.

The possibility of reducing the elements to their primal form, as they are supposed to have existed in the igneous mass from which the earth-crust is believed to have been formed, is not considered by physicists to be so absurd an idea as has been intimated. There is a relationship between metals often so close as to indicate an original identity. Persons called alchemists may, therefore, have devoted their energies to investigations into these matters as Lavoisier, Davy,

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1. I speak not fictitious things, but what is true and most certain.
2. What is below is like that which is above, and what is above is similar to that which is below to accomplish the wonders of one thing.
3. As all things were produced by the mediation of one being, so all things were produced from this one thing by adaptation.
4. Its father is the Sun; its mother is the Moon.
5. It is the cause of all perfection throughout the whole earth.
6. Its power is perfect if it is changed into earth.
7. Separate the earth from the fire, the subtile from the gross, acting prudently and with judgment.
8. Ascend with the greatest sagacity from the earth to heaven, and then descend again to earth, and unite together the power of things inferior and superior; thus you will possess the light of the whole world, and all obscurity will fly away from you
9 This thing has more fortitude than fortitude itself, because it will overcome every subtile thing and penetrate every solid thing.
10. By it the world was formed.
11. Hence proceed wonderful things, which in this manner were established.
12. For this reason, I am called Hermes the thrice greatest, because I possess those parts of the philosophy of the whole world.
13. What I had to say about the operation of the Sun is completed.

Faraday and others of our day have explained the mysteries of chemistry.

But Alchemy, we apprehend, was a different affair; its professors and adepts only employed the peculiar dialect or "jargon" as a species of figurative language, to cover an esoteric meaning of a far different character. The philosopher's stone, the alcahest and the elixir were names of one and the same thing, and were supposed to accomplish an identical operation. Baptista Porta, in his treatise on Natural Magic, declares as much: "I do not promise any golden mountains, nor yet that philosopher's stone which the world hath so great an opinion of, which hath been bragged of in so many ages and happily attained unto by some; neither yet do I promise here that golden liquor, whereof if any man do drink, it is supposed that it will render him immortal. But it is a mere dream;* for, since the world is mutable and subject to alterations, therefore whatsoever the world produceth is subject to destruction."

Such was the real belief of all genuine alchemists.

The reason for the employment of a peculiar mystic form of speech was the great peril which was incurred for religious dissent. Learned men, generally, who were imprudent in the expression of their convictions, were punished during the middle ages, as in the case of Galileo, Copernicus and numerous others. They were all classed by the ignorant, among dealers in the "black art," having intercourse with spirits and demons; and were, as occasion served, burned at the stake, broken on the wheel, or disjointed on the rack, for disregarding the current belief and endeavoring to instruct the common people. Like the *nahash* or serpent of Eden, for showing men how to be as the *Aleim*, they were "cursed above all cattle," and doomed to "eat dust"—suffer abuse—all the days of their life; because, in the language of Goethe,

> "Out of their heart's pulses they needs must gabble,
> And show their thoughts and feelings to the rabble."

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* The *Memoires Historiques*, printed in 1687, contain the following tale: "In the year 1631, a stranger, who called himself Signor Gauldi, went to reside in Venice, and there attracted attention by his apparently universal knowledge, his beautiful and valuable collection of paintings, and the singular circumstance that he was never known to write or receive a letter, to desire credit, or to make use of notes or bills of exchange. He paid for everything in ready money, and lived in a very respectable style A nobleman, who was a remarkable good judge of pictures, applied for permission to see the collection of Signor Gauldi, which request was at once complied with. Over the door hung a portrait of Gauldi himself. The nobleman remarked:

"'This picture is a portrait of yourself.'

"Gauldi bowed assent.

"'You look, sir, to be no more than fifty; but I know that painting to be by the hand of Titian, who has been dead one hundred and thirty years. How is this possible?'

"'It is not easy to know all things that are possible,' replied Gauldi, 'but there is certainly no crime in the fact that I am like a picture by the hand of Titian.'

"The nobleman forebore to speak more on the subject; but afterward, mentioning the circumstance to several of his acquaintances, they determined to examine the picture the next day. Before they could put their design into execution, Signor Gauldi had removed to Vienna."

Hence Irenæus Philalethea Cosmopolita, an English alchemist, or Hermetic writer, in his book published in 1659, makes the following allusion to persecutions:

"Many who are strangers to the art believe that if they should enjoy it, they would do such and such things; so also even we did formerly believe, but being grown more wary, by the hazard we have run, we have chosen a more secret method. For whosoever hath escaped imminent peril of his life, he will become more wise for the time to come."

It was very likely, when a man, for differing in religious faith, was branded as an infidel and punished as an outlaw; when scientific knowledge was stigmatized as witchcraft, that men cultivating ideas out of the common order would invent a dialect of symbols and passwords by which to communicate with one another, and yet remain unknown by their bloodthirsty adversaries. Besides, there was another reason, the one adopted by the psalmist, who "opened his mouth in a parable and uttered dark sayings of old," and imitated by Jesus. Geber, the Arabian, thus discloses it:

"If we have concealed anything, ye sons of learning, wonder not; for we have not concealed it from you, but have delivered it in such language as that it may be hid from evil men, and that the unjust and vile might not know it. But, ye sons of truth, search and you shall find this most excellent gift of God, which he has reserved for you. Ye sons of folly, impiety and profanity, avoid you the seeking after this knowledge; it will be destructive to you, and precipitate you into contempt and misery."

Alchemy, therefore, we believe to have been a spiritual philosophy, and not a physical science. The wonderful transmutation of baser metals into gold was a figurative expression of the transformation of man from his natural evils and infirmities into a regenerate condition, a partaker of the divine nature. The philosopher's stone is well enough indicated by Aristotle, in his address to Alexander: "It is no stone; it is in every man and in every place, and at all seasons, and is called the *end* of all philosophers." The alcahest is but the *al-geist*, or divine spirit, which removes every grosser nature, that its unholier principles may be removed. The *elixir vitæ* is accordingly the water of life, which is, to borrow the language of Godwin, "a universal medicine, having the quality of renewing the youth of man, and causing him to live forever."

Doctor Kopp, of Germany, who published a "History of Chemistry" a quarter of a century ago, after alluding to alchemy in its peculiar character of precursor to that science, made use of this significant expression, which the Pythagorean and Platonist will instantly comprehend: "If by the world is understood the *microcosm* which man represents, the interpretation will be easy of the writings of alchemists."

The Hindu story relates that Chrisna commanded his foster-mother to look into his mouth. She did so, and beheld there the whole universe. This was a figure of speech, indicating that in man the microcosm, or little world, is mirrored all things pertaining to the entire creation. The alchemist denominated the philosopher's stone *microcosmos*, and Weidenfield declares as follows: "The Most High God hath made us partakers of all the blessings contained in the greater world, for which reason man is called microcosm; for it has been revealed to us by divine inspiration, that the virtues and potencies of all things animal, vegetable and mineral, are in man."

Irenæus Philaletha declares: "Our stone is the representative of the great world (or macrocosm), and hath the virtues of that great fabric, comprised or collected in this little system. In it there is a virtue magnetical, attractive of its like in the whole world. It is the celestial virtue, expounded universally in the whole creation, but epitomised in this small map or abridgment."

In a book, purporting to be a translation of the writings of Alipili, the following passage occurs:

"He that hath the knowledge of the microcosm, cannot long be ignorant of the knowledge of the macrocosm. This is that which the Egyptian industrious searchers of nature so often said and loudly proclaimed, that every one should KNOW HIMSELF. This speech, their dull disciples, the Greeks, took in a moral sense, and in ignorance affixed it to their temples. But I admonish thee, whosoever thou art, that desirest to dive into the inmost parts of nature, if that which thou seekest thou findest not within thee, thou wilt never find it without thee. He who desires the first place among the students of nature, will nowhere find a greater or better field of study than himself. Therefore, will I here follow the example of the Egyptians, and from my whole heart, and certain true experience proved by me, speak to my neighbor in the words of the Egyptians, and with a loud voice do now proclaim: Oh, man, know thyself; for in thee is hidden the treasure of treasures."

Cornelius Agrippa, perhaps the most generally known of the magicians and alchemists, carries this idea further, and says:

"There is one thing by God created, the subject of all wonderfulness in earth and in heaven; it is actually animal, vegetable and mineral; found everywhere, known by few, by none expressed by his proper name, but hid in numbers, figures and riddles, without which neither alchemy nor natural magic can attain their perfect end."

George Ripley, a monk, who wrote of alchemy, thus explains the philosopher's stone:

> "For as of one mass was made all thing,
> Right so must it in our practice be;
> All our sects of one image must spring;
> In philosophers' books, therefore, who wishes may see,
> Our stone is called the less-world, one and three."

In a dialogue published in the *Alchemist's Enchiridion*, in 1672, the matter is made more distinct:

"Now, in this discourse will I manifest to thee the natural condition of the stone of the philosophers, appareled with a triple garment, even this stone of riches and charity, the strong relief from languishment, in which is contained every secret; being a divine mystery and gift of God, than which there is nothing in this world more sublime. Therefore, diligently observe what I say, namely, that 'tis appareled with a triple garment, that is to say, with a body, soul and spirit."

Moses, the great Hebrew law-giver, differed not widely from these mystics when he enunciated: "The word, or ineffable Name, is not in heaven nor beyond the sea, that thou shouldst send messengers to seek it; it is very nigh thee, in thy mouth and in thy heart."

The peculiar diction of the alchemical writers occasioned much of the general misunderstanding of their teachings. They treated of salt, sulphur, mercury, lead, antimony, and the transmutation of metals; and probably large number of persons, not comprehending them aright, attempted to follow out their instructions literally, in quest of a fortune by the production of gold. Paracelsus, who does not seem to be well comprehended by cotemporaries or posterity, declaring himself a student of alchemy, ventured to employ the substances named to cure diseases. But it is plain that alchemists themselves did not regard the knowledge of the material substances as a part of their science. Espagnet declares as follows: "A studious tyro of a quick wit, constant mind, inflamed with the love

of philosophy, of a pure heart, perfect in morals, mightily devoted to God—even though ignorant of practical chemistry, may with confidence enter the highway of nature, and peruse the books of the best philosophers."

Irenæus Philaletha also remarks: "In the world our writings shall prove as a curious-edged knife; to some they shall carve out dainties, but to others they shall only serve to cut their fingers: yet we are not to be blamed, for we do seriously admonish all who shall attempt this work that they undertaketh the highest piece of philosophy in Nature: and though we write in English, yet our matter will be hard as Greek to some, who will think, nevertheless, that they understand us well, when they misconstrue our meaning most perversely; for is it imaginable that they who are fools in nature should be wise in books, which are testimonies unto Nature?"

Espagnet also gives this caution: "Let a lover of truth make use of but a few authors, but of best note and experienced truth; let him suspect things that are quickly understood, especially in mystical names and secret operations; for truth lies hid in obscurity; nor do philosophers ever write more deceitfully than when plainly, nor ever more truly than when obscurely."

Roger Bacon, in his Treatise on the Admirable Force of Art and Nature, devotes the first part of his work to natural facts. He gives us hints of gunpowder, and predicts the use of steam as a propelling power. The hydraulic press, the diving bell and kaleidoscope are all described; and he foretells the making of "instruments to fly withal, so that one sitting in the midst of the instrument and turning about an engine by which the wings, being artificially composed, may beat the air after the manner of a flying bird." He then defends himself and other alchemists for using secret writing. "The cause of this concealment among all wise men is the contempt and neglect of the secrets of wisdom by the vulgar sort, who know not how to use those things that are most excellent, or if they do conceive any worthy thing, it is altogether by chance and fortune, and they do exceedingly abuse that their knowledge, to the great damage and hurt of many men, yea, even of whole societies; so that he is worse than mad that publisheth any secret, unless he conceal it from the multitude, and in such wise deliver it that even the studious and learned shall hardly understand it." "Some have hidden their secrets by their modes of writing; as namely, by consonants only: so that no man can read them unless he knows the signification of

the words; and this is usual among the Jews, Chaldeans, Syrians and Arabians, yea, and the Grecians too; and, therefore, there is great concealing with them, but especially with the Jews."

The elixir was supposed, according to the Hermetic belief, to have not so much the power of transmuting specifically base metals into gold and silver, as the power generally of bringing to its highest perfection any substance to which it was applied; indeed, the philosopher's stone was itself the universal medicine—the *all-geist* or all-pervading spirit. Ashmole says:

"Unless the medicine be qualified as it ought, it is death to taste the least atom of it, because its nature is so highly vigorous and strong above that of man; for if its least parts are able to strike so fiercely and thoroughly into the body of a base and corrupt metal as to tinge and convert it into so high a degree as perfect gold, how less able is the body of man to resist such a force when its greatest strength is far inferior to the weakest metal? I do believe that many philosophers, having a desire to enjoy perfect health, have destroyed themselves in attempting to take the medicine inwardly ere they knew the true use thereof, or how to qualify it to be received by the nature of man without destruction.

THE CONCLUSION.

The problem of alchemy, therefore, was, but in another form, the riddle of the Sphinx; and the answer is the same: "That which hath been is that which shall be; and that which hath been is named already—and it is known that it is man." The real mystery, most familiar and at the same time most unfamiliar to every man, into which he must be initiated or perish as an atheist, is himself. For him is the elixir of life, to quaff which before the discovery of the philosopher's stone, is to drink the beverage of death, while it confers on the adept and the epopt the true immortality. He may know truth as it really is—Αλήθεια, *ale theia*, the breath of God.

This is the alcahest which dissolves all things.

There have doubtless been charlatans who pretended to be alchemists, as there have been impostors professing the gift of prophecy, and quacks claiming knowledge beyond others of the healing art; but that is not superior ken which therefore declares all physicians, sages and gifted men to be but quacks and mountebanks. In the end, Wisdom is justified of her children.

The parentage of the modern practice of Medicine can hardly be traced to old Alchemy, even by the bend sinister.

PHTHISIS PULMONALIS.

A paper read before the Brooklyn Academy of Eclectic Medicine.

By D. E. SMITH, M.D.

Gentlemen: The subject chosen for the few thoughts I may bring before you this evening is PHTHISIS PULMONALIS—a theme full of interest to us all.

It is a well known fact that from one-sixth to one-seventh of the entire human race, north of the tropics, die of this disease. What single subject, then, is fraught with so much interest to the humane physician, or could occupy our thoughts more profitably?

The frequency of the disease, and its appalling mortality, should stimulate us to discover, if possible, some means of cure, or at least some mode to prevent it. If by any suggestion I may make in presenting this paper, or any hint you advance in the discussion which may follow, we may be able to arrest, or obstruct the pathway of the pale horse and rider in their fearful and terrible march to destruction, we will be amply repaid.

The term *Phthisis* is a Greek word, the signification of which is, to consume, to waste or decay. It was introduced in medicine at an early period, and was used for many years in its generic sense, signifying consumption of every kind, and was afterwards more distinctively applied to the particular organ supposed to be involved, as *Phthisis Pulmonalis*, *Phthisis Hepatica*, *Phthisis Mesenterica*, *Phthisis Syphilitica*, &c. As our knowledge of morbid anatomy increased, and particularly after the extensive researches of Laennec into pulmonary diseases, and published in 1819, the word has been chiefly applied to pulmonary, or lung consumption.

A man may write volumes upon this disease, provided he follows steadfastly in the paths our fathers trod, and the profession will sanction all of it. But let him have the boldness to suggest some *new* plan of treatment, some *new means* of cure for this pestilence which wasteth by noon-day, and the fate of a Harvey, or a Jenner, will be sure to follow. I will not be so uncharitable as to suppose our medical brethren of the old school do not desire to cure this disease, but rather they believe "and are convinced that when it once takes possession of the patient, it goes not out until the spark of life goes with it."

To prove that this is their belief and their teachings, I will make a few quotations from some of the most noted in the old school practice, and will then proceed to discuss the causes of Phthisis, and the probabilities of curing the disease. The Cyclopedia of Practical Medicine, speaking of this disease, says: "No physician acquainted with the morbid anatomy of Phthisis can, for a moment, indulge the hope that we shall ever be able to cure what is usually termed confirmed consumption, if we except the small proportion of cases in which the tuberculous deposit is confined within narrow limits. The state of the lungs in the advanced stage of Phthisis is to be regarded as the result of a series of morbid processes, which have terminated in the destruction of the organ; and we might as reasonably expect to restore vision when the organization of the eye is destroyed, or the functions of the brain, when the substance of that organ is reduced by disease to a pultaceous mass, as to cure a patient whose lungs have been extensively destroyed by tubercular disease."

Professor John A. Swett, in his treatise upon Diseases of the Chest says: "I willingly admit that no remedy has as yet been discovered which appears to exert any specific influence upon tubercles (in the lungs), either in preventing their development or in promoting their cure. Antimony, digitalis, iodine, have all had their day of imaginary success, and all have been forgotten. Cod liver oil, the present popular remedy, is destined to experience the same fate. It has not, in my opinion, any specific influence in Phthisis. It has not, in my experience, performed any wonderful cures. I do not, however, mean to deny its usefulness in this disease. It certainly sometimes appears to diminish the emaciation, to improve the appetite. It is good nourishment; nothing more. And I think it very probable that other kinds of oil, equally well prepared, may exert the same beneficial influence."

Professor Austin Flint, in his recent work on the Principles and Practice of Medicine, says of this disease: "Unhappily, the treatment of acute pulmonary tuberculosis may be dismissed in a very few words. The condition of the patient is hopeless, and all that the physician can do is to palliate symptoms, and support the powers of life."

Dr. Nathaniel Chapman, who was for many years Professor of Theory and Practice in the University of Pennsylvania, in one of his publications, denounces a man who professes to cure consumption, as sinking himself to the most degrading charlatanism, and solemnly

declares, that, in a practice of fifty years, he has never seen a case of decided consumption cured. This, gentlemen, is a record of his practice, and in this particular our Old School friends nearly all agree: "The universal mortality among their patients seems to inspire them with confidence that their practice must be right. Nothing daunted these learned physicians conduct all the members of the family to their graves, one after another, giving the same remedies to all, without supposing for one moment that their practice is wrong."

We belong to the progressive branch of the medical profession, and dare to think, to write, to speak, and to publish new remedies and cures for all ailments, without, in our own estimation, at least, "sinking beneath the most degrading charlatanism."

I would like at this point to examine the treatment of the Old School physicians in this disease, and prove that the means recommended by them are not only valueless, as is admitted, but that they absolutely hurry their victims to their long and silent rest. But time will not permit. "Alas, for poor suffering humanity, a few high priests in this school of medicine dictate to all the others, and the laity consent to receive instruction only through these oracles," while with the Eclectic branch of the profession it is a cardinal principle to take nothing on trust, to receive no man's medical opinion as law, until clinical practice proves its truth. "*We* give a *reason*, rather than an authority." I will not consume time, or tax your patience in attempting to show *what* tubercular deposits are, or give a chemical analysis of the constituent formation of them. Pathologists have done all this, and for the requisite information I would refer you to their writings. I will simply mention the most recent theories advanced, and their causes and symptoms, and then proceed to discuss the probabilities of the cure of the disease.

Dr. J. H. Bennet regards tubercle as some peculiar alteration, or impairment of the blood, in consequence of which the *liquor sanguinis*, which has been effused from some quasi-inflammatory action, instead of proceeding on its normal development into healthy formative cells, or into pus, is somehow arrested midway of this process, and the imperfect residuum remains as tubercle.

Dr. McCormac, of Belfast, Ireland, in his work on Consumption, says: "Tuberculous scrofulous deposits, then, whether in the offspring of scrofulous consumptive parents, or the offspring of persons free from scrofulous, tuberculous disease, are alike; and in every case, owing to the insufficient, imperfect performance of the respira-

tory function, the carbon is retained—in other words, it is not discharged, or sufficiently discharged from the blood in the lungs; and, finding no adequate outlet by the liver, skin, or other possible emunctories, being neither burned off in the lungs, nor expended in the tissues, is deposited, mainly as a hydrocarbon, in the lungs and other organs, under the form of the bodies known by the designation of tubercles."

He attributes this "imperfect decarbonization of the blood, to the impurity of the air we breathe in our places of business and pleasure, but more particularly in our ill-ventilated sleeping apartments." That impure air has much to do in developing Phthisis, none will deny, but that all who breathe *only pure* air would in consequence escape the disease, is entirely another question, on which Dr. McCormac fails to enlighten us.

The observations of the distinguished microscopist, Virchow, have revealed the fact that there are two kinds of tubercles found in the lungs, the gray and the yellow. The former only he recognizes as the true tubercle, and traces its growth or progressive development from minute air-cells, which in turn come from a parent cell. The progress of this, the gray tubercle, he informs us, produces acute Phthisis, or quick consumption; while the yellow tubercle, he tells us, is the result of the fatty degeneration and disintegration of other tissues, and results in chronic or lingering consumption. Since the researches of Virchow, a new theory relative to the formation of tubercle has been advanced, which is more than probably correct. It is called the "epithelial theory," and regards "tubercular matter as originally a normal condition of the parts," epithelial cells which have failed to be excreted from the system when their work is done, and remain to be excreted by softening and expectoration, or possibly to be mainly absorbed after a fatty degeneration, as sometimes occur with pus cells." But why, we ask, are these formations so constantly taking place; why is it that nine-tenths of our race have small, narrow, contracted chests? I answer, it is because we fail to use our lungs as the God of nature designed we should; we fail with ordinary respiration to force the air properly into the lungs. The air-cells of the lungs, we must recollect, have walls which thicken either from external pressure or internal engorgement, until they are made smaller or are entirely closed. Now, if the walls of these cells are thickened or closed, so that the cast-off epithelium cannot be thrown off by the normal action of the lungs, of course it must remain, and thus a nucleus for tuberculous deposit is formed.

It is an old saying, that "death loves a shining mark," and how fearfully true is this saying realized in this pestilence which "wasteth by noonday." This fearful, this terrible disease we find in our very midst, in our families, around our firesides, snatching away our loved ones; for it is the young, the beautiful, the gay, the noble men and women of our country, and our most cherished ones, that are numbered among its victims. And in this disease the physician's skill is acknowledged as comparatively useless. I ask, must we sit quietly and see those we love and cherish torn from our grasp by this ruthless monster, and will we not raise our hands and at least attempt to stay his destructive career?

Gentlemen, I tell you I believe *Phthisis Pulmonalis* is a disease of fashion, a child of civilization, a pathological condition brought on by our ignorance and indiscretion—by not using the inspiratory organs as God designed we should—by a confirmed habit of throwing the shoulders forward upon the lungs, and thus prevent the inhaling of the pure air which Heaven has so freely given us, and with which our Maker intended we should fully and freely expand our lungs; for if we fail to so expand our lungs, this cadaverous fiend will be on our track to punish us for the neglect.

"There is a statue at Florence, in Italy, representing a naked lady, having just left her bath; her person gracefully inclining or stooping forward, she extending her hand for her robe. The figure has been admired by parties of pleasure from this and other countries, as the acme of grace and elegance, and there has been a great desire by those who witnessed this statue to imitate it. This stoop has been christened with the dignified name of the 'Grecian bend,' and many are the victims of *Phthisis* who have thus voluntarily, and vainly tried, to place their persons in a similar position, or rather posture; forgetting that however graceful the Grecian bend may be, for a lady leaving her bath, it was never designed to represent a woman clothed." We ignorantly bring our children up, and really educate them to this *stooping position;* this much-admired "Grecian bend." We send them to our public and other schools, where the desks are built low, without reference to physiology, and our sons and daughters are obliged to sit in this stooping position for hours each day; and, while rehearsing their lessons at home, their book, slate or geography is placed upon their laps, and their head and shoulders thrown forward, thus compressing the lungs and preventing the air from properly entering them. Not content with thus torturing our chil-

dren through the day, when we put them to bed, and imprint upon their cheek the good-night kiss, we are sure to leave them with their little heads resting on a pillow, with a bolster underneath, well elevated, with the shoulders pressing upon the lungs and preventing their free and full expansion. What a terrible price we have to pay for thus violating the laws of life! We bring up and educate our children, only to find this monster Phthisis feeling for their heart-strings while they are yet in their teens. I hope soon to see the day when the seats and desks in our public and private schools will be built on true physiological principles—when physiology and the laws of life will be embraced in our system of education, and thoroughly taught in all our schools as mathematics are now. "As the twig is bent the tree's inclined." This is a trite saying, which will be apparent to all if we notice adult persons, male and female, while in the act of reading. Instead of holding their paper or book squarely up before their eyes, we find four out of five will drop their paper on their lap, and incline the head and shoulders forward upon the lungs, thus retarding their expansion. I have said that, "this was a disease of fashion, a child of civilization." Let us elaborate this point a little, and see if my position be true.

Tuberculosis does not exist in animals while in their native condition. Neither the beasts of the field, the fowls of the air, nor the fish of the deep, have consumption of the lungs while in the natural state. It is only when we domesticate them that they become the subjects of this disease. Phthisis Pulmonalis was unknown among the native Americans; and by them I mean the North American Indians, while in their native state. They were a tall, erect, full-chested race. Perfect specimens of physical strength; their occupation was hunting, fishing, dancing, chasing the buffalo, deer, etc. In a word, they used their lungs as God designed they should; their exercises being out of doors, they breathed *only* Heaven's pure air, and their occupation caused them to inflate their lungs to their utmost capacity. When they became, as we say, civilized and lived as the white race lived, it was then, and then *only*, that they became the victims of consumption.

Now, gentlemen, I ask you, can it be possible that our Heavenly Father has created us so imperfect that a disease exists among us incurable in its nature, that sends to an untimely grave one-seventh of our population? It would be sacrilege to make the assertion. Let us learn from these facts a lesson that we may profit by, and use

these hints in such a way that we may drive, if possible, from the list of diseases, this fell destroyer that is threatening to depopulate our race. I have faith that we can do it. As Eclectics we confessedly stand before the world, and are the vanguard in the great medical army. The positions in pathology and theraputics, which we held fifteen years ago, are now assumed by the Old School practitioners, at least those of them who are now coming on the stage of action; though the Old Hunkers still cling with a death-like tenacity to their idols, *mercury*, *antimony* and *arsenic*. But I am digressing from my theme.

The remote causes of Phthisis are, first, sedentary habits; especially the habit of sitting with the body inclined forward. This exerts a decided influence in the development of Phthisis. Any position of the body which retards epithelial excretion favors tubercular deposit. The scrofulous diathesis, a syphilitic cachexia, constitutions impaired by salivation from mercurial courses,—all these exert an unfavorable influence in the production of this disease.

Another, and, as I think, the most important of the remote causes of Phthisis is, the consanguinity of the marriage relation. In selecting wives who are to be the mothers of our children, with similar temperaments to our own, or the marrying of cousins, for the purpose of keeping the property in the family, the results of such unions are often mental imbecility and scrofula in its varied forms; and it is a fruitful source of the disease under consideration. What a fearful mistake is made in this respect by our young men and women, and how intensely must be their mental sufferings in beholding their sickly offspring dragging out a miserable existence, only to pass from off the stage of action at puberty, or soon after, by this or some other disease, thus entailed upon them by thoughtless and imprudent parents. Dr. Bemiss, of Kentucky, who has looked into this matter somewhat extensively, gives to the world the comparison between the deaths of the offspring of consanguineous marriages, and non-related parties. The deaths, while young, in the former were eight hundred and eighty-five, of which the causes are assigned in four hundred and seventy-five cases; in the latter, one hundred and thirty-four died young, of which the causes of death in sixty-nine are given. In the former class, *i. e.*, the marriage of relations, one hundred and eight died of consumption; in the latter, six. In the former, forty-four died of convulsions; in the latter, six. In the former, fifty-five died of scrofulous affections; in the latter, two, and in many other diseases the larger proportion was in the former class.

IMMEDIATE CAUSES.

Among the more immediate causes of Phthisis Pulmonalis, debility, or a low vital condition of the system, acts a prominent part in developing the disease. The inhaling impure air, sleeping on feather beds, exhaustive indulgences, neglected colds, dancing at balls in thin dresses, and then going home during the small hours of the morning, largely tend to induce the consumptive diathesis. The inhalation of dust, gases or vapor is also a fruitful source of the disease. Some writers think mineral dust the most injurious; then animal dust; and least of all vegetable dust. The dust arising from the manufacture of flint-stones, grindstones and whetstones are all very injurious to the lungs, and the finer the dust the more injury is likely to result. Excessive sexual indulgence, masturbation, exhalations from the lungs and skin of consumptive patients, the crowding of many persons in factories, rooms, houses and sleeping apartments, sleeping with very old and debilitated persons, are among the immediate causes of tuberculosis.

Tubercular deposits are almost invariably found in the cellular tissue of the lungs. Sometimes, however, we find them in the air-cells and branches, also upon the surface of the mucous membrane of the lungs. These tubercles are, in appearance, white, or rather, grayish; they are distinct and firm when pressed with the finger; in size, they vary from a mustard-seed to a small pea. As long as they remain hard, little danger need be apprehended; but when from cold they soften, run together and suppurate, the disease becomes alarming and pregnant with the most fearful forebodings.

SYMPTOMS.

The first sign we notice in an attack of Phthisis Pulmonalis is, a languid, debilitated condition of the patient. Exercise produces fatigue; going up stairs or walking fast causes a short, hurried breathing, with more or less palpitation; the pupil enlarges, giving a staring appearance to the eye; the skin is pale, but, unlike the pallor of anæmia, with a look of languor and a want of enthusiasm. The circulation is feeble, and the respiration quick. When these symptoms are present, the lungs contain more or less tubercular deposits in the embryo or crude state. A dry, hacking cough is usually present, also a tickling sensation in the trachea. In examining the chest in the first stage of Phthisis, there will be observed a flattening

below the clavicles, and a falling-in above them, on the diseased side. The pectoral and intercostal muscles do not exhibit their normal fulness; there is a drooping of the shoulders, with an inclination to stoop forward. The respiratory movements of the chest are lessened, and on placing the ear to the back of the chest they will be detected with difficulty. In auscultating the chest in order to detect Phthisis in its first stages, it is well to place the ear first over the healthy lung and then over the diseased one. The respiratory volume will be the more apparent. You will find the fulness of the inspiratory effort lessened; it will be short, feeble, diminished in length, and incapable of fully expanding the chest. Percussion will give a dull sound over the clavicles, and over the chest in general, owing to the absence of air in the tissue of the lungs.

In the second stage, or maturing period, the tubercles increase in size and numbers, so as to obstruct and compress the substance of the lungs, thus preventing the air from freely passing in. We now find the pulse accelerated; hectic fever, night-sweats, the breathing more difficult, chilly sensations, which usually come on at regular periods; the expectoration thin, frothy, transparent, resembling mucus, and sometimes streaked with blood. Often hæmoptysis will be the first sign of phthisis manifested.

In the third stage, or period of softening, the formation of cavities takes place. The respiration is now more hurried and short; the voice changes, being weak and hoarse; there is increased emaciation and expectoration of thick, tenacious, greenish or yellowish-looking matter, revealing, under the microscope, pus corpuscles; the features now become sharp, the eyes sunken and languid; the nails curve inward, and are more or less livid in color; the cheek-bones are prominent, the ankles and legs become œdematous; night-sweats are profuse and debilitating; there is colliquative diarrhea; and death ends the same.

TREATMENT.

The treatment of Phthisis resolves itself into three kinds: First, the *prophylactic*, or that which has for its object the prevention of consumption in those who are hereditarily or otherwise predisposed to the disease. Secondly, the *curative*, or that which endeavors to arrest its progress, after tubercles have developed themselves; and, third, the *palliative* treatment, or that recommended after softening of these tubercles, and constitutional disturbance have taken place,

such as hectic fever, night-sweats, suppression of the catamenia, the raising of blood and pus, diarrhea, etc.

Much, very much, may be done, in the first and second cases, in effectually eradicating the disease, and thus preventing it from reaching the third, or ulcerative stage, which is far more difficult to manage. Many physicians believe that in the supporative stage of consumption, but little, except palliative treatment, can be given, owing to the physiological action of the lungs in the process of respiration. In order, they say, effectually to heal or cure an ulcer, the part upon which such ulcer is located, *must remain passive or quiet.* And, when such ulcer (which is but another name for softened tubercle) is located in the lungs, this keeping quiet would be quite impossible, as the act of breathing, being absolutely necessary to carry on the vital functions, would so disturb such ulcer as to entirely prevent its healing. Hence, experience has given us the unpleasant but substantial proof of how little can be accomplished toward the permanent benefit of a patient in this stage of the disease; and they insist that we can only palliate the symptoms, and make him comfortable, for all hope of cure is gone forever. This point we will examine hereafter. Having paid much attention to thoracic diseases, and more particularly to the one under consideration, for the past twenty years, I propose to give the treatment usually adopted; believing, as I do, that, if these peculiar means are vigorously applied in the incipient, or forming stage of Phthisis, this disease would be eradicated from the list of those which destroy the human race.

I have elsewhere said, which I now repeat with emphasis, *that our lungs were given us to use*, and I take the broad ground that if we fully and freely inflate them to their utmost capacity, with pure air only, tuberculosis of the lungs would cease to exist. This may seem strong language in view of the great mortality of the disease under consideration, and some may feel disposed to revile me. But if, by making an honest attempt to show that Phthisis Pulmonalis is amenable to treatment; if, by venturing to prove that it can be cut short, and tubercles already formed be absorbed, and the patient cured,—I say, that, if this entitles me to the stigma of "sinking to the most degrading charlatanism," I accept it and bind it as a front-let upon my brow, and will glory in wearing it to the grave.

I have, photographed upon this piece of paper, the model of a perfect physically-developed man. In other words, man in his primeval

state. You will observe that the figure is straight in form, the shoulders high and thrown back, the spine straight, almost, as an arrow, the muscular system well developed, the thoracic region large, giving room for a free expansion of the lungs, the head erect and presenting to the eye a perfect representation, physically, of man as God made him.

To ensure freedom from Phthisis there is no one thing of so much importance as large and well-developed lungs. The lungs, to be healthy, *must* be fully expanded, so as to stretch the air cells completely open, or, in other words, to force the air to the bottom of such cells. This cannot be done if we allow the chest to be in any way contracted around them. Now, I ask, what is the real condition of seven-tenths of the civilized portion of the human race, as we find them? I think this society will unite with me in the assertion that they are similar in appearance to this model which I have, photographed on this paper, in contrast with the figure just exhibited of the perfect physically formed man.

You will observe, that, from the second cervical to the first dorsal vertebra, an unnatural curve in the spine, which, in some persons, amounts to an angle of forty-five degrees, and in many even to the fourth part of a circle; you see the shoulders drooping and thrown forward upon the sternum, thus compressing the lungs, retarding respiration and placing these organs in a position to provoke tuberculous deposits. I am convinced that the habit of stooping and throwing the head and shoulders forward, as is seen in this model, is, in almost every case, contracted in our seminaries, colleges and public schools. "As the twig is bent the tree's inclined." This is an old saying, and it is *fearfully true* in this instance. If I could have the ear of every parent in our land, I would say: See to it that your sons and daughters go to schools, and to those only, which look after the physical as well as the mental training of children. I would say: Follow your boys and girls to the halls of learning, and insist upon it that their seats shall be low enough for their feet to touch the floor; that the desk or table in front of them shall be *high*, within two inches, at least, of the arm-pits, so as to allow the lungs to expand freely. Habit and practice will soon cause children to prefer the high desk to the low one. I would have them sit *directly facing* their desks, and not one side, resting upon their arm or elbow, as this position will frequently bring on curvature of the spine, and this indirectly induces the disease under consideration. I would also say

to parents: When you put the little ones to bed do not let their heads rest upon a high pillow, with a bolster underneath, as is the custom of the present day, so as to prevent the air from filling the lungs. There is a model school in the city of Brooklyn, N. Y., located on the corner of Lafayette avenue and Hall street, and is known as the *Adelphi Academy*, where physical exercise is united with the mental training of the pupils. All scholars, old and young, connected with this institution, are compelled every day to go through a calisthenic exercise, occupying from twenty to thirty minutes, in which every muscle of the body is brought into action. In a word, they train the bodies of our boys and girls as well as their intellects and morals.

The question, how we are to inflate our lungs so that this process may prove an auxiliary in the prevention and cure of tuberculosis, is easily answered. First, then, let us stand perfectly erect, and throw the shoulders upward and backward from off the sternum, filling the lungs to their utmost capacity with pure air, and while they are thus filled throw the arms over the head, backward and forward, so as to bring the pectoral and intercostal muscles into action. Second, exhale all the air that is in the lungs, and again inflate as before; then with the hand doubled up strike against the chest so as to force the air into all the air-cells. This process has reference to the prevention of threatened Phthisis only, and this exercise should be gone through with daily.

To absorb tubercles in the lungs after they have formed there, it will be indispensably necessary to use, in addition to medicine, what is called the *inhaling tube*, which I now hold in my hand, and the use of which I will explain hereafter. This instrument was invented by Dr. Francis H. Ramadge, of England, and, like many great discoveries in medicine, was a mere accident. The circumstances which led to its discovery were as follows: Laennec, the noted French physician, more than fifty years ago, wrote a book on diseases of the lungs and chest, in which he stated to the world that consumption of the lungs was sometimes cured by nature or accident, but how he could not tell. He alluded to cases of true consumption which had recovered, lived for many years, and finally had died of other diseases. He had examined the cases after death, and had found extensive cavities in the lungs where ulcer had once existed, but they had healed. Dr. Ramadge was a pupil of Laennec, and afterward established a lung hospital in London. Among his numerous patients was one whose lungs were extensively affected, and while under

treatment a tumor appeared on the lower part of the neck, which pressed upon the *trachea* in such a way as at times to threaten suffocation, and it required all of the doctor's skill to save his life. In a few weeks the swelling began to subside, and when the *tumor was gone the consumption was cured.* A few months afterward, a man far gone in consumption, whose brothers had all died of the disease, came to consult Dr. Ramadge, when he mentioned the case of the man who was cured by the tumor on the neck. The patient was a silversmith. At the doctor's suggestion, he made a band of silver to go around the neck with an ivory ball placed upon it, so that it pressed on the *trachea* in a manner similar to the tumor. It caused the patient to inhale and exhale the air with difficulty. To the doctor's utter astonishment, this man was cured of his consumption also. From these two cases Dr. Ramadge learned that it had the effect to enlarge and to expand the chest and lungs, and that this was the secret of curing the disease. His strong mind was wonderfully wrought upon by these two unexpected cures; his keen perception was not long in solving the problem, and the result was the invention of the *inhaling tube.*

There is sound philosophy, and much common sense, in the use of this tube, in the treatment of tuberculosis. I speak from a practical point of view, having used them as an auxiliary in the treatment of consumption for the past fifteen years. Physiologists inform us, that, by making pressure upon a tumor, or an abnormal enlargement, absorption will take place; the tumor will be lessened in size, and, in time, be entirely removed. Even aneurisms have been frequently cured by pressure alone. This tube is so arranged by a small valve, situated in the large end, that the air is obstructed in its passage from the lungs, and is thus compelled to pass through a very small opening in the side of it. To accomplish this, it requires a strong effort to force or press the air out, which of course gives a corresponding pressure upon the tubercles in the lungs. Hence, *absorption must go on.* Here, then, is one of the inestimable advantages of the inhaling tube in successfully treating this disease.

Again, it is not the quantity or the quality of the food we eat that gives us strength and vigor, but the amount and purity of the air that we breathe. This great fact seems to be forgotten by many. Consumptives often eat largely, and of the best quantity of food; but their breathing is hurried, short and quick, and we know that emaciation and debility always accompanies such breath-

ing. It is the quantity of oxygen which we absorb into the blood that imparts vitality, health and vigor to our systems. Now let us look for a moment, and see the action of the inhaling tube in this particular. By filling the lungs with pure air through the tube, and then exhaling it through the small aperture in its side, the process of respiration is necessarily slow; and, consequently, the oxygen is kept in contact with the circulation for a much longer period than in the ordinary process of breathing. The result is that a larger amount of the living principle is received into the blood; and thus, while it promotes absorption of the tubercular deposits, it purifies the life-current, and imparts strength and vitality to the whole system. Here, then, we have another strong argument in favor of using the inhaling tube in successfully treating this disease.

It may be asked by some: Do you recommend the use of the inhaling tube after tubercles have softened and ulceration has taken place? I unhesitatingly answer, yes; and, would add, that in this little instrument lies the only hope of cure. Medicines may and no doubt often do relieve the patient; but, in order to raise the standard of vitality in this condition, we must have a large amount of oxygen in the blood; and this can only be obtained through the medium of the lungs, by long and full inspirations of pure air. Again, ulcers in the lungs, when once formed, do not incline to heal when left to themselves. Every hour the substance of the diseased organ grows less, and the walls or edges of each ulcer are continually becoming further apart, and, consequently, cannot unite and heal. Here lies our greatest difficulty in curing Phthisis Pulmonalis after ulceration has taken place. Now let us see the effect of using the tube in this pathological condition of the lungs, which is declared by Old School physicians and many others to be incurable. First, it will create a free expectoration of mucus and pus, and thus will cleanse the ulcers and put them in a condition to heal. Second, it will enlarge the air-cells around the ulcers, and bring the blood-vessels to their normal size by forcing the surplus blood from them. Third, it will cause the lungs to swell to an enormous size, often to twice their normal condition. The reaction of the air, when blown through this tube, is so great that it causes them to press against the thorax to such an extent that the chest will enlarge in diameter to from three to six inches. I have enlarged my own chest by the use of the inhaling tube four inches by actual measurement.

When the lungs are so distended as to press against the thorax, and to enlarge the chest in diameter, every cavity in the lungs will close; or, in other words, the edges of the ulcers will be pushed together, so that they will meet, and even overlap each other. This is the way, and the only way, that ulcers in the lungs are healed. All of you will acknowledge, that, by this process of treatment, the ulcers are placed in the only position which they can be to make a cure possible.

I would not have you infer, from the remarks submitted, that *all* cases of consumption can be cured. Far be it from me to leave any such impression on your minds. Unfortunately, when physicians are first called, it is often in the last stages of the disease; while in other cases they find it exceedingly difficult to make the patient follow up the treatment. There is one thing to which I will call your attention. In the first attempt to use the inhaling tube the patient will usually complain of increased soreness in the chest, especially in the region of the abscess; and if your diagnosis is not correct he will soon inform you of it, for he can point out the very spot where the ulcers are. It may, therefore, be prudent not to tell your patient too much in regard to the exact location of his disease, as you may receive from him important information in this particular.

The first experience in the use of the inhaling tube in Phthisis is that the respiration will be far more quick and hurried, the palpitation of the heart increased; and other symptoms may supervene, which apparently aggravate the disease, and which will continue more or less for two or three weeks. This often discourages the patient, and he will very likely be disposed to throw the tube aside. It is an old saying, that "Perseverance conquers all things," and it certainly is true in this particular; for it is only by perseverance in using the inhaling tube that good is accomplished and the disease is arrested.

I will now conclude this paper which, in length, has far transcended the original limits designed, by reporting two cases out of the hundreds treated for this disease during the past twenty years.

In the fall of 1852, Miss Mary D——, aged nineteen years, came to consult me relative to a lung trouble she was then laboring under. Her mother informed me that she had been ailing for two years, and that two physicians in Greenpoint, where she was then living, had seen her and pronounced her case *consumption of the lungs.* She

had recently taken her to consult Prof. James R. Wood, of New York city, who, after a careful examination, pronounced her case to be *tuberculosis.* True to the idea that the Old School was infallible, and not wishing to "sink himself beneath the most degraded charlatanism," he told the mother plainly that her daughter was incurable, and advised to take her home and to make her as comfortable as possible; for *three months* was the *longest she would probably live.*

I was called and examined her chest by auscultation, percussion and measurement, and readily detected, as my predecessors had before me, tubercles in both lungs. She had had two attacks of hœmoptysis during the previous six months, and the catamenia had been suppressed for the past four months. A dry, hacking cough was present, which annoyed her very much night and day. She had a pale, cadaverous look; a bright, glassy eye; a hurried and quick respiration, with an œdematous condition of the feet and ankles. This case, at least, appeared to be genuine. After the examination, the mother asked my opinion; and having confidence in this process of cure, I informed her that there was a fair chance for recovery. She looked at me with astonishment. I suppose she thought that I wanted a patient, or at least some of her money; which, by the by, was not far from the truth, as I was shorter of both patients and money at that time than I have been since. I saw from her actions that she was not disposed to let me treat her daughter, as my prognosis differed so materially from the united opinions of the physicians who had preceded me. Judging from her looks, she evidently believed me to be a humbug. I informed her that I did not wish to treat the girl unless she desired it; but that I did not believe it necessary to write her death certificate until an honest effort, at least, had been made to cure her, an effort which I did not care to make, unless my advice and directions were faithfully complied with. After a private interview between herself and daughter, it was agreed that I should *try for one month*, and that my suggestions should be strictly followed.

I required the young woman to use the inhaling tube, and gave her a pulmonary syrup, similar to that found in the Eclectic Dispensatory, together with good nourishing diet, and such other remedies as the symptoms seemed to require. I visited her at home, and ordered for her bed-room the garret, it being the largest room in the house; the feather bed to be replaced with a husk mattress; the windows at both ends of her *bed*-room to be opened through the day, and closed

at one end during the night, so as to have a constant supply of pure air; the coal stove to be removed, and in its stead a wood fire in an open fire place. She was ordered to use the inhaling tube three times daily, beginning with five minutes at first, and gradually increasing to thirty minutes each time; using it first before rising in the morning, *and at all times on an empty stomach.* This, gentlemen, constituted the treatment. Now for the result. She soon gained strength, the catamenia returned, the thorax enlarged, the volume of respiration increased, and, in *fifteen months she was pronounced well.* Eight years subsequently, she was married, and one year following, I attended her, at which time she presented her husband with a bouncing boy. She is still living, and, although sixteen years have passed since her treatment, I think her risk would not be refused at the present time by any life insurance company in the country.

In December, 1863, I was sent for, professionally, to see a lad seventeen years of age, named Wellington M———, residing in Monroe street, East Brooklyn. He was from birth a narrow-chested, delicately-built, frail young man, inheriting this constitution from his mother. For at least one year previous he had tubercular deposits in his lungs. He had attended a social gathering in a church near his residence, a few evenings previous; and, there being no fire in the room, he imprudently laid off his overcoat. He soon became chilled through, so much so that it was with difficulty that he reached home. Three days subsequently I was sent for, and found him in a truly deplorable condition, with all the symptoms of quick consumption. In ten days time from his first attack, the tubercles in his lungs had softened; expectoration of their contents had commenced; and for eight weeks he raised at least *one quart* of thick, tenacious, ropy-looking pus a day. Profuse night-sweats now set in; hectic fever; pulse one hundred and fifty per minute; with extreme emaciation, nervousness and debility. The expectoration in this case was enormous; more than I had ever seen before or since, and having a very disagreeable, fœtid smell. Here was a decided case of softened tubercle, or ulcerated lungs, with every prospect of speedy death. I assure you, gentlemen, I could give but little encouragement to the lad, or to his anxious parents. However, I resolved to put forth my best endeavors, and to exert my utmost skill, in order to save the boy if possible; though I am free to acknowledge, that, in this case, I had not the sweet angel of hope to cheer me on and

stimulate me to increased exertions; for I expected that all my labors would end only in the shroud, the coffin and the grave. The treatment of this case was similar to the one related above, with this exception: I told him that I was but *one chance for his life*, and that was in the *constant and vigorous use of the inhaling tube.* That *might* save him; but his chances were small even then. If ever a patient faithfully used this little instrument, it was the lad I am speaking of. Day and night he blew away upon the tube, forcing the air away down deep into the lungs, and expanding them to their utmost capacity; thus infusing all of the oxygen possible in the blood, promoting the absorption of such tubercles as had not as yet softened, and placing those that had ulcerated in a position to heal. For six months he was confined to his bed and room, but gradually convalesced and in ten months was able to attend to his ordinary avocation. It was, however, more than two years before nature recuperated and health was fully restored. I saw him a few days since; he looks well and hearty. At my suggestion, however, he carries his inhaling tube with him, and still uses it occasionally.

In presenting this paper the only object I had in view is to arrive at truth, and in the two cases I have just reported I have endeavored to represent them just as they were, without coloring or exaggeration. I might report many others, but time will not permit. These persons are still living, and it would be a pleasure for me to introduce them to you, that you might learn from their own lips the truth, as stated above. And now, if by the few thoughts I have thus hastily thrown out you may obtain any hint by which you may be enabled to check the onward march of this terrible malady, I shall be amply rewarded for presenting the paper, and you be repaid for the severe tax on your patience in the attention you have given me.

CONCENTRATED MEDICINES.

By P. ALBERT MORROW, M. D.

It appears that what are commonly termed Concentrated Medicines have grown into decided disfavor with some of the practitioners of the New School. Not only are these preparations condemned as such, but the possibility of obtaining the active medicinal principles of plants in a highly concentrated form, without impairing or entirely destroying their therapeutical virtues, has been questioned. Believing that such condemnation is entirely too unqualified and absolute, I have undertaken in this paper to indicate a few of their points of excellence, and even of superiority.

The most inattentive observer cannot fail to note the broad difference which distinguishes the treatment of disease at the present day from what it was a quarter of a century ago. The practice of medicine is now characterized, not only by a more accurate diagnosis of diseased conditions and by a more rational and successful application of remedies to fulfill pathological indications; but this difference is even more marked in the character and quality of the medicinal agents which are administered. Instead of those crude agents and absurd combinations which, from their offensive taste and uncertain action, were repulsive to patients and unsatisfactory to practitioners, it has now become the custom to use medicines which are comparatively pleasant and agreeable, and which approximate to a degree of positiveness in their action. That this is an improvement, every one will admit. It has resulted partly from our more intimate acquaintance with physiological laws and the essential nature of disease, and partly from the labors of Eclectics in the development of our indigenous Materia Medica and the introduction of a superior class of remedial agents. When we consider the character of the medication formerly employed; how patients were bled, blistered and dosed with nauseous mixtures and poisonous agents; and how totally absurd and irrational the whole plan of treatment practiced, we cannot wonder that the medical art had fallen so low in public estimation and in the confidence of its own practitioners. It is, therefore, not surprising that many intelligent and conscientious physicians, observing the results of such practice, believed it wiser to refrain altogether from interference with disease, than to commit themselves to a treat-

ment so uncertain and too often attended with dangerous results. They had become skeptical as to the curative powers of drugs, and finally believed that there was no art and science in medicine. As a natural outgrowth of these conditions, there arose a class of physicians, who, shunning this heroic and barbarous treatment on the one hand, and not running to the opposite extreme of a do-nothing expectancy, believing that the vegetable kingdom furnished valuable therapeutic resources, turned their attention to the exploration of our medical botany, and substituted safe and sanative remedies in the place of those pernicious agents formerly so much in vogue. Although the labors of Eclectics have in a measure redeemed our art from the disrepute into which it had fallen, yet when the improvements in therapeutical science are contrasted with the advances made in Physiology and Pathology, the comparison is far from flattering. The researches and investigations which have been going on in Physiology within the last few years have given us a clear and rational explanation of the functions of the human system, revealing to us many of those mysterious and subtle laws which govern vital action, and have elevated it, in some degree, from the rank of a speculative to that of a positive science. The advances made in Pathology have resulted in a more complete and accurate knowledge of the history of disease, and sounder principles upon which to base our treatment. The exploration of diseases by physical signs and by the chemical and microscopical examinations of products has furnished us the means of investigating symptoms and referring them to the organic lesions on which they depend, and has thus given a precision and positiveness to diagnosis which is the greatest achievement of modern medicine. When we turn our attention to the development of therapeutical science, and consider how much it has added to our power of alleviating and curing disease, we must admit that its progress has been comparatively insignificant. It has long been the *opprobrium* of the medical profession, that we possess few agents of specific therapeutical powers; and that in the exhibition of medicines we are groping blindly in the dark, without positive knowledge of the effect they will produce. The question naturally arises, What has been the cause of this failure in our resources against disease? It is not because we have not had earnest and diligent workers prosecuting their labors in this field of experimental research, nor is it attributable to the fact that these labors have been barren of results, for our Materia Medica has certainly been enriched by many

agents of unquestionable therapeutical worth. But, while there has resulted a multiplication of remedies, it must be confessed that there have been given us but few agents positive and reliable in the cure of disease.. The cause of this is no doubt chiefly due to the *varying qualities* and *uncertain action* of the medicines administered. The requirements of the healing art demand that our remedies should be positive in their character. The importance of this point has been too much overlooked. It is something which intimately concerns the reputation and success of every individual practitioner. His diagnosis may be correct and his prescription perfectly appropriate; yet, if the remedy be defective or unreliable, the patient fails to receive benefit, and the reputation of the practitioner is injured. How often have physicians found that while a certain medicine produced a certain effect, another preparation of the article precisely the same, so far as physical appearances would indicate, is modified or entirely different in its action. The truth is, too little attention has been paid to the most appropriate and effective method of administering medicines. The influence of pharmacy on the development of the healing art has not received that consideration which its importance demands. It is only within a few years past that Eclectics have begun to recognize this fact, and to devote special attention to the preparation of medicines of uniform strength and with properties clearly defined.

Every one is familiar with the fact that the medicinal virtues of plants reside in certain proximate principles. Organic chemistry has shown us that a large proportion of the bulk of the plant consists of constituents essential to its nutrition, but inert so far as any medicinal action is concerned. It is also well known that the proportions of the active constituents widely vary, according to the conditions of soil, climate, etc., which may be present, and the season in which it is gathered. The influence which these conditions exert upon the development and perfection of the medicinal principles is too well known to deserve further mention; the point which chiefly concerns practitioners is simply this: that crude plants differ widely as to the amount of active principles they contain, and that it is impossible to judge of this amount from their physical appearance or sensible properties. The relative proportions of the alkaloids, morphia and quinia, in the different specimens of the crude opium and cinchona bark, are familiar examples of the truth of this proposition. Chemical analysis has shown us that the yield of the morphia principle, in different specimens of opium, varies from 2 to 18 per cent, and the

same objection of the variable quantity of active constituents may be applied with even greater force against the use of other crude agents. Hence, we see how utterly impossible it is for medicine ever to be divested of that uncertainty and indefiniteness which attends its practice, so long as we employ agents in their crude forms. It would seem, then, that the principle on which the preparation of concentrated medicines is based, namely, that of isolating the active medicinal principles of plants from the non-medicinal constituents with which they are blended, and presenting them with their properties clearly defined, and of uniform strength, is the only one by which we can procure medicines reliable in their action upon the system. As far as I am apprised, this is the only form of preparation in which the entire separation of the therapeutic from the nutritive constituents of the plant is effected, and, therefore, the only preparations which are not open to the objection that they lack uniformity in strength, and are liable to destructive alterations. Besides these essential qualities they possess many desirable characteristics, such as diminution of bulk, convenience of administration, etc., which commend them to the favor of practitioners. By comparing the relative merits of the different forms of preparations, many other points of superiority might be demonstrated, but such an examination cannot be entered into without exceeding the proposed limits of this paper.

It has been urged as an objection against this method, that nature, in her laboratory, perfects the plant for the use of man, and that in all preparations the natural condition and combination of its constituents should be preserved. But while this objection may be plausible in theory, it is wholly untenable on practical grounds. The searching powers of analysis have demonstrated that the active medicinal principles of plants are combined with a large proportion of inert matter and constituents which sometimes even produce unpleasant effects; and clinical experience has proven incontestibly, that medicines, prepared to the exclusion of these inert and objectionable elements, are more prompt and efficacious in their action, and come nearer fulfilling the essential conditions of a positive remedy.

Another objection has been urged, that resinoids and alkaloids are only fractional representatives of the therapeutic properties of the plant, and do not always produce effects analogous to the crude plant from which they are derived. This, so far from proving an objection is actually an argument in favor of this process. It is well known that some plants contain many distinct medicinal principles. One prin-

ciple may be tonic, another stimulant, another astringent, while a fourth may differ widely from either of the others in its effect upon the human system. Each of these principles impresses the organism in a manner peculiar to itself. How then is it possible to discriminate between the effects of a remedy and the symptoms of the disease, when we employ a complex organic compound with such diverse therapeutic powers? How often do practitioners reject a valuable agent in conditions where it would be indicated, did it not possess a certain therapeutic influence which makes it objectionable. The only way to obtain precision in prescribing, is to determine definitely the therapeutical powers of each individual principle; and, when we wish to secure the total medicinal virtues of a given plant, to recombine these active constituents as we deem advisable. Some physicians, while they admit that this process is very beautiful in theory, contend that, practically, it is impossible. What has been done in extracting morphia, quinia, podophyllin, gelsemin, etc., it is fair to presume may be done with every other vegetable remedy. If it has not proved so successful in the case of other agents, it only proves the imperfection of the chemist's skill, and not the falsity of the principle.

In offering these suggestions, I do not wish to be understood as saying that the preparations of any one manufacturer are perfect, or are wholly worthy of the confidence of practitioners. From the very conditions of their manufacture, many of them are necessarily imperfect. It is only within a few years past that chemists have begun to turn their special attention to this branch of pharmaceutical science, and it cannot be expected that the processes of manufacture are in every respect complete, or that the resulting preparations are perfect as they might be. Besides the necessary imperfections in manufacture, there are other influences which have operated in bringing many valuable remedies into disrepute. When this peculiar feature in the improvement of the remedies began to be manifested, Eclectic medicine was then in its infancy. There had not been a rigid testing of the remedies introduced. Our manufacturers were not dealing with medicines whose value had been established by long-continued use. Consequently, it is not surprising that, in their zeal to advance their interests, they imputed to them many properties which, on experiment, they have not been found to possess, and, as a natural consequence, they have been brought into disfavor. But the true remedy for this seems to me to lie, not in a wholesale condemnation

of this entire class of agents, but in subjecting them to more rigid tests, and thus determining definitely the whole range of their medicinal virtues. The point for which I am contending is, that the principle on which concentrated medicines are prepared is the true one. It is a step in the right direction, and the only way in which medicine can be stripped of the uncertainty which attends its practice, and elevated from the condition of a blind empiricism to the rank of a science. It is hardly probable that medicine will ever attain the dignity of a positive science, if it be considered that a science approximates perfection, just in that degree in which we can determine results beferehand with precision. It is hardly probable that we will have specifics that will cure disease under all circumstances. The habits, constitution and temperaments of individuals are so infinitely varying, and exert such a modifying influence over the action of medicines, that the curative powers of remedial agents can never be absolute and constant. Although we can never predict with absolute and unerring certainty what the effect of a given remedy will be, yet there is no doubt but that much can be accomplished towards this end, if medicines can be obtained of uniform strength and purity.

THE PROTEIN COMPOUNDS.

BY J. M. F. BROWNE, M.D., LL.D., Professor of Physiology and Pathology in the Eclectic Medical College of New York.

Protein is the name given to a substance obtained by chemical analysis from globulin, gluten, casein, pepsin, fibrin and albumen; and these six substances from which it is derived are known as the "Protein Compounds." The term "protein" is of Greek origin, and signifies "*basis*," "*starting point*," or "*beginning*;" it is derived from the adjective πρῶτος *first*, or from the verb πρωτεύω *to take the first place*. Protein was discovered by Mulder, who regarded it as the basis of all the tissues, and named it in accordance with that idea. When dry, it is yellowish, hard, tasteless, readily pulverizable and insoluble in water and alcohol. Its formula is C 36, H 50, N 8, O 10. The process by which it is obtained is this: Dissolve any one of the protein bodies in a moderately strong solution of caustic potassa, and heat the mixture to a temperature of 120 degrees, then saturate it with acetic acid, and protein will be separated in the form of a gelatinous, semi-transparent precipitate. It matters not which of the bodies is made the subject of experiment, the substance resulting is invariably the same. The protein compounds, therefore, must be regarded as protein, modified by the addition of certain proportions of sulphur or phosphorus, or both. Each of them merits particular notice.

Globulin.—This organic substance, found only in the blood, is the constituent element of the globules, and forms the principal part of their mass or bulk. It is the colorless substance that remains after the hæmatin is extracted. Globulin is an albuminous body; Robin and Verdeil regard it as albuminose; Lecanu thinks it identical with albumen; Mulder and others place it among the protein compounds. It is certainly closely allied to albumen, resembling it in coagulating at a temperature of 212 degrees, and differing from it in not coagulating when brought in contact with alcohol. In its natural condition globulin is nearly fluid.

It is insoluble in the serum of the blood, but very soluble in water, and the water, in dissolving it, destroys the globules.

Gluten.—This compound is a proximate principle of vegetables; it is a soft, grayish-white, elastic substance, insoluble in water and alcohol, but soluble in vegetable and weak mineral acids at a high temperature. Gluten is what remains of wheaten dough when the gum, starch, sugar and albumen are removed. It may be obtained by exposing to a stream of water, a quantity of flour, wrapped in a coarse cloth. The water washes away the gum, starch, sugar and albumen, and leaves the gluten in the form of a viscid, coherent mass. If exposed to a moist atmosphere it putrefies; if to a dry atmosphere, it becomes hard, brown and fragile. Gluten is contained in the various cereal grains in greater or less abundance, according to the soil and the mode of cultivation. In wheat, the quantity vibrates from 12 to 30 per cent; in rye from 7 to 10 per cent; in oats from 4 to 8 per cent; in Indian corn from 3 to 6 per cent, and in Irish potatoes, from 3 to 4 per cent. It is to the gluten it contains that wheaten flour owes its superiority over other farinas, for the purposes of making fermented bread, crackers and cakes, and for the manufacture of macaroni, vermicelli, and similar pastes.

Casein.—This compound is common to animals and vegetables; in the latter it is found chiefly in leguminous seeds, as peas, beans and lentils. In animals it normally exists in milk only. In lactating women, however, it may appear in the blood, if the secretion of milk be arrested; and Prout noticed it in the urine of a delicate child whose food consisted chiefly of milk. Casein is the only nitrogenized constituent of milk, and exists in that fluid in the proportion of from two to four per cent. It is more abundant during an animal than a vegetable diet, and the quantity increases as lactation proceeds. In constitution and properties it resembles albumen, but differs from that substance in holding in solution a larger percentage of phosphate of lime; and in being coagulable by all the acids, and also by alcohol, but not by heat. Casein is the coagulable principle of milk and the basis of cheese. It may be obtained by allowing the milk to remain at rest until coagulation takes place, skimming off the cream and then washing and drying the clot. It is very perfectly coagulated by the action of a substance known as rennet, which is simply the dried and salted abomasus or fourth stomach of the calf. About the nature of that action there is a difference of opinion. Some suppose that the pepsin in the rennet acts catalytically, coagulating the casein by the mere influence of presence. Others

maintain that the rennet converts the lactin in the milk into lactic acid, and that the lactic acid unites with the alkali, holding the casein in solution, and thus causes the precipitation of the latter in the solid form. The percentage of casein in milk is different in different species of animals. Women's milk contains 1.52 per cent, goats' milk, 4.02, ewes' milk, 4.50, asses' milk, 1.82, cow's milk, 3 to 4.48.

Casein is the great histogenetic material in infantile food. As the tissues of the chick within the shell are built up from the yolk of the egg, so the tissues of the young mammal, during the period of lactation, are developed from the casein and other elements of the milk.

Pepsin.—This substance is generated in the stomach and forms one of the elements of the gastric juice. The term pepsin is derived from the Greek "πεψις," signifying "coction" or "digestion," and is applied to the substance under consideration, because, by its agency, aliment is converted into nutriment. The proportion of pepsin in the gastric fluid is small, being about 17 parts in 1,000.

It is perfectly soluble in cold water; but not so in warm. From its watery solution it may be precipitated by the salts of lead and by alcohol, without impairment of its activity. It differs from the other protein bodies in containing a greater amount of nitrogen; and it differs from albumen in not being precipitable from its solutions by the same re-agents.

The digestive power of pepsin is suspended by alkalies, concentrated acids, 95 per cent alcohol and cold, and is completely and permanently destroyed by bile and by a temperature of 120 degrees.

How pepsin acts in effecting the solution of albuminoid substances has not been positively determined. Some think it causes an hydration or intimate alliance between the albumen and the water; others think it acts by catalysis, producing, by a different arrangement of particles, a difference of quality without changing the composition. The latter is probably the correct opinion.

Fibrin.—This compound is common to animals and vegetables. It is a white, solid, flexible, highly elastic substance, without taste or smell, insoluble in water, alcohol and acids, but soluble in caustic potassa. It is found, in its natural fluid state, in blood, chyle, lymph, and in inflammatory exudations. In the blood it constitutes about 3 parts in 1,000, but the quantity varies in different parts of the circulation. The jugular vein, for example, contains more of it than the

portal, the portal more than the splenic, and the splenic more than the hepatic. There is rather less in the blood of man than in some of the lower animals, and, generally speaking, there is less in the blood of the carnivora than in that of the herbivora. It is more abundant in the blood of birds than in that of any other animals. Fibrin may be obtained either by beating blood with a rod, to which it will adhere in filaments, or by washing a clot in clean water so as to dissolve out the hæmatine or coloring matter. Chemically speaking, fibrin does not differ *essentially* from albumen. It probably contains one atom less of sulphur and one atom more of oxygen, but in other respects it is isomeric with it. The most important difference between them is, that in the act of coagulation, fibrine shows a definite structure known as *fibrillation;* albumen does not. The coagulum of fibrin is invariably marked with fibres, that of albumen is never so marked, and is always either hyaline or minutely granular.

Fibrin gives to the blood its power of coagulation, and in fibrin the life of the blood partially inheres. Until quite recently, fibrin was regarded as the only histogenetic element of the blood. Now, however, many eminent physiologists regard it rather as the element first organized, than the only organizable element, in the plasma. They think that fibrin never rises to a higher organization than mere simple fibre; that, in that capacity, it outlines or shadows forth the future tissue and then disappears; and that the tissue is developed from albumen and the other immediate principles. They regard fibrin as the matrix or mould in which the tissue is cast, rather than the material of which it is made.

Albumen.—Of the whole protein group, albumen may be taken as the type and most important member. It is found both in animals and vegetables. Vegetable albumen differs from animal albumen, in not congulating by heat, and from fibrin, in dissolving in water. Animal albumen exists in two forms, fluid and solid. It is found solid in the brain, nerves and spinal cord, and also in the mucous membranes, which are thence called albuminous tissues. It is found fluid in the serum of the blood, in the lymph and chyle, in all the serous secretions, the liquor amnii, and the aqueous and vitreous humors of the eye. It is present, also, in the fluid which may be extracted by pressure from the muscular tissue. That form of it which is found in the blood is termed seralbumen, that found in eggs,

ovalbumen. Albumen is without color, taste or smell, and coagulates by heat, by acids and by alcohol. It coagulates at a temperature of 145 to 160 degrees Fah., but when in very dilute solution, a temperature of 212 degrees will be required to solidify it. It coagulates also by contact with alcohol, ferrocyanide of potassium in an acidulated solution, creasote, tannic, nitric and all the mineral acids, except the phosphoric. Phosphoric acid and all the vegetable acids. except the tannic, dissolve it when solidified.

The albumen of the blood varies in quantity from 60 to 70 parts in 1,000; the albumen of the chyle, from 30 to 60 parts in 1,000; while that of the lymph amounts to only about 4 parts in 1,000, The quantity of albumen is greater in venous than in arterial blood, and physiologists say that the proportion increases during digestion. Albumen is the great histogenetic element of the blood—the plastic material by which the tissues are nourished and the waste of the system repaired.

PROCEEDINGS OF THE SEVENTH ANNUAL MEETING OF THE

ECLECTIC MEDICAL SOCIETY OF THE STATE OF NEW YORK.

FIRST DAY—MORNING SESSION.

The seventh annual meeting of the Eclectic Medical Society of the State of New York convened at the Delavan House, Albany, on Wednesday, January 27, 1869, at 10 o'clock A. M.

The meeting was called to order by the President, Prof. W. W. Hadley, of Brooklyn, E. D.

The following officers were also present at the opening: Prof. Paul W. Allen, M.D., of New York, Recording Secretary; Dr. M. M. Fenner, of Jamestown, Corresponding Secretary; and the Treasurer, Dr. D. E. Smith, of Brooklyn. Prof. Edwin Freeman, of New York, and Dr. Wm. Jones, of Newburgh, represented the Board of Censors.

The following also answered to the roll of membership: R. H. Owen, M.D., of Haverstraw; R. Hamilton, M.D., of Saratoga Springs; Harmon Pease, M.D., of Schenectady; Josiah A. Martin, M.D., of Troy; H. E. Firth, M.D., of Brooklyn; Thos. Robens, M.D., of Quaker Springs; J. G. Fross, M.D., of Syracuse; A. P. Parsons, M.D., of Forrestville; Daniel A. Chase, M.D., of Cambridge; Alvin R. Edson, M.D., of Greenwich; Wm. R. Hayden, M.D., of New York; Mrs. Wm. R. Hayden, M.D., of New York; George W. King, M.D., of Saratoga Springs; Orrin Ford, M.D., of Saratoga Springs; J. M. Comins, M.D., of New York; James Day, M.D., of New York; Wm. H. Bowlsby, M.D., of Brooklyn; P. A. Morrow, M.D., of New York; and J. Edwin Danelson, M.D., of Little Falls. In addition to the above were delegates from other societies, both State and county organizations.

The Convention was opened by prayer by the Rev. Dr. Peck, of Albany.

The minutes of the last annual meeting, and also of the semi-annual meeting, held in Syracuse in June last, were read by the Secretary, Prof. P. W. Allen, and approved.

A motion was made that the Senate and Assembly be invited to be present at the meeting this evening.

Motion prevailed.

Dr. E. Freeman moved that the Governor and staff be invited to attend the meeting this evening, in the Assembly Chamber.

Motion carried.

Resolved, That a committee of three be appointed by the Chair to wait upon His Excellency and extend the invitation.

Drs. R. Hamilton, Josiah A. Martin and James Day were appointed such committee.

J. Edwin Danelson, M.D., of Little Falls, was elected Assistant Secretary and Reporter for the Society.

On motion, it was

Resolved, That facilities be extended to the reporters of the press of this city for obtaining reports of the proceedings; also, that members of the press present be invited to dine with the Society.

Credentials of delegates from district and other societies were then received and referred to the Board of Censors.

Some of the members of the Board being absent, the following received *pro tem.* appointments: Wm. R. Hayden, M.D., Samuel Tuthill, M.D., and Orrin Ford, M.D.

The Board of Censors then retired for consultation.

The Secretary then presented his financial report, viz:

Receipts since last report,	$29 80
Expenditures in sundries,	11 60
Balance,	$18 20

Report approved and referred to Treasurer.

Voted, that the Treasurer pay the bill for publishing one thousand copies of the annual address by Prof. Allen, in amount thirty-eight dollars.

The Treasurer's report was submitted, reading as follows:

The Eclectic Medical Society of the State of New York
in account with D. E. SMITH, M.D., *Treasurer.*

1868.	To balance on hand at last report,		$71 81
Jan. 16.	Received from Secretary,		31 00
June 20.	" " "		140 00
	Total,		$242 81
Jan. 16.	Room in Delavan House,	$10 00	
	H. C. Cooper, reporter,	25 00	
	Express on manuscript,	90	
	Circulars, envelopes and postage,	7 50	
	Janitor at Syracuse,	5 00	
	Stationary, ink, etc.,	65	
	Paid Secretary for work on transactions,	100 00	
			149 05
	Balance on hand,		$93 76

The report of the Committee on Surgery, consisting of Professor E. Freeman, M.D., and Henry C. Cooper, M.D., was read by the former. Report received and referred to the Committee of Publica tion.

The President suggested that in future each member of a committee report.

The report of the Committee on Obstetrics, W. Jones, M.D., and Dr. Harmon Pease, of Schenectady, was called for. Dr. Pease responded, reading an interesting essay on the subject. At its conclusion he exhibited to the society a bandage, gored so as to fit the hips and adjacent parts, and supplied with a tab, which being pinned prevents it from slipping. Remarks upon the merits of the bandage followed. It was voted to receive the paper and refer to Committee on Publication.

The President appointed a committee to make nominations for officers of the society for the ensuing year, consisting of Samuel Tuthill M.D., of Poughkeepsie, and Drs. D. E. Smith and H. E. Firth, of Brooklyn, with instructions to report during the afternoon.

J. G. Fross, M.D., of Syracuse, member of Committee on Medical Hygiene, presented an essay. He dwelt at length on miasma, and the infection from crowding, and from putrefaction. The paper was received and referred to the appropriate committee.

Dr. J. W. Johnson, from the Connecticut Eclectic Medical State Society, was introduced.

The Society adjourned to three o'clock, P. M.

FIRST DAY—AFTERNOON SESSION.

The Committee to wait on Governor Hoffman report that His Excellency accepted the invitation, and would endeavor to be present at the delivery of the annual address.

Dr. George W. King, of Saratoga Springs, exhibited a "Vagina Injector," and read a paper on its objects and use. Paper received, and referred.

The Committee on Nominations of Officers, report the following:

President, ... L. STANTON, M.D.
Vice-President, ... E. FREEMAN, M.D.
Recording Secretary, ... W. W. HADLEY, M.D.
Corresponding Secretary, ... A. WILDER, M.D.
Treasurer, ... D. E. SMITH, M. D.

Board of Censors—Prof. P. W. ALLEN, M.D.; SAMUEL TUTHILL, M.D.; R. H. OWEN, M.D.; J. M. COMINS, M.D.; P. A. MORROW, M.D.; J. G. FROSS, M.D., and H. E. FIRTH, M.D.

Action on this report was, by vote, suspended until after the report of the Board of Censors.

Dr. Josiah A. Martin read an unfinished report on the Status and Position of Eclectic Medicine. He was requested to finish his report and present it to the Publishing Committee.

The Board of Censors report as follows:

"We, the Board of Censors of the Eclectic Medical Society of the State of New York, make the following report of the names of delegates, whose recommendations are considered sufficient to entitle them to become members of the society:

R. J. Burton, Albany.
H. D. Gross, Ballston Springs.
O. H. Simmons, Albany.
J. M. F. Browne, New York.
R. C. Kunze, New York.

J. H. Fitch, New York.
Alexander Wilder, New York.
E. P. Huyler, New York."
(Signed by the Censors.)

Drs. H. E. Firth, and R. N. Owen were appointed tellers.

By ballot, all the reported delegates were unanimously elected.

In the election of officers for the ensuing year other nominations were received, and each was voted upon separately.

Dr. Alexander Wilder and Dr. D. E. Smith were nominated for President; Dr. Smith declined. Dr. A. P. Parsons was nominated for the office of Corresponding Secretary, and Prof. Paul W. Allen for office of Recording Secretary; Prof. Allen declined.

The following officers were chosen, and their eleetion declared unanimous:

President, ... ALEXANDER WILDER, M. D.
Vice-President, ... Prof. E. FREEMAN.
Recording Secretary, ... Prof. W. W. HADLEY.
Corresponding Secretary, ... A. P. PARSONS, M. D.
Treasurer, ... D. E. SMITH, M. D.

Censors.—Drs. P. W. ALLEN, SAMUEL TUTHILL, R. H. OWEN, J. M. COMINS, P. A. MORROW, J. G. FROSS and H. E. FIRTH.

Resolved, That the President elect furnish his photograph to be inserted in the next volume of Transactions.

A motion was adopted to have a librarian to take charge of the books of the Society; Dr. John H. Fitch was nominated and elected.

Dr. E. Freeman moved, as an amendment to the by-laws, article III, section 1, to add to the names of officers that of Librarian, to read: "At each annual meeting the Society shall elect, by ballot, a President, a Vice-President, Recording Secretary, Corresponding Secretary, Treasurer and Librarian, who, by virtue of their offices, shall constitute a Board of Directors, to which Board shall be intrusted the corporate affairs and general business of the Society when not in session, &c."

This amendment lies over till next annual meeting for final action.

Resolved, That Dr. Johnson, of Connecticut, and Dr. Day, of Pennsylvania, be received as delegates, and invited to take seats with this Society.

Dr. E. Freeman moved an amendment to the by-laws, fixing annual dues upon each member of the Society to the amount of two dollars.

Dr. W. R. Hayden offered an amendment that the sum be one dollar; that the payment of the same be obligatory on each member of the Society; and that if the same annual dues be unpaid for the term of three years, such member shall be liable to expulsion.

Dr. Samuel Tuthill suggested that the names be dropped from roll of membership.

Dr. Freeman proposed an amendment that such members be suspended until their dues are paid.

The question was divided, and the point of penalty was first put. The vote resulted in favor of Dr. Freeman's amendment.

Dr. James Day moved, as an amendment, that the annual dues be five dollars.

The question of amount of annual dues was then put to vote. The amendment, fixing the amount at $5, was lost; that fixing it at $1 was lost; that making the annual dues two dollars prevailed.

The amendment, as carried, lies over until next annual meeting for final action, and reads as follows:

"ARTICLE XIII—*Dues.*

"At each annual meeting of this Society the members thereof shall pay to the Society two dollars each as annual dues. If such dues are not paid for three years, such member shall be suspended from the Society until he shall have paid such accrued dues."

The President announced that the Society would meet in the Assembly Chamber, on Capitol Hill, at eight o'clock this evening, to listen to the annual address, by Dr. M. M. Fenner, of Jamestown.

The Transactions of the Society for 1867 were brought to the room for the members.

Prof. Paul W. Allen moved that they be equally distributed, and that each member be entitled to three copies.

Dr. P. A. Morrow moved an amendment that each member be entitled to five copies.

This amendment prevailed.

Dr. M. M. Fenner moved that the thanks of the Society be tendered to our Secretary for his careful and tasty arrangement of the transactions, and to the officers of the past year, himself excepted, for the full discharge of their duties.

Amended that he be included, and carried.

Prof. W. W. Hadley spoke, in a short address, of the successes of the Society for the past few years; that it had obtained two charters, one for the Society, and one for the Eclectic Medical College of the city of New York, and that we hold, to day, equal rights and privileges with the other medical societies of the State. In retiring from his position, he would thank the members for the honor conferred, and express the hope that the Association may continue to progress. He added that the newly elected officers will take their proper positions at the meeting this evening.

Prof. P. W. Allen addressed the Society:

I feel grateful to the Society for the kind motion of Dr. Fenner. I have endeavored in compiling the volume of Transactions to make it as acceptable as possible. By seeing Mr. Van Benthuysen and making special arrangements, the quality of the paper is improved and better than any heretofore used. In regard to the articles furnished, some were from those unaccustomed to write. These I re-arranged and put in the best shape. In some cases it would have been easier to have written the article itself. This has all been done, so that in the future this book may be looked upon as scientific, worthy the name, and fully commendable, being presented in as good a form as that of any State society, at any rate, as the Homeœpathic and Allopathic works of this State and the State of Massachusetts. In point of practical value, it stands higher than that of any other society I know of. The Old School have devoted a large part of their work to monstrosities. This is very good of itself, but compare it with our own. We have improved treatment of croup, dysentery, consumption, cancer, etc., reports of skilled and intricate surgical operations, and all these of a character to command respect. I take pleasure in the thought that the members have done as well as they have. In regard to the payment for my labors, I am sure that I earned the money, and think to-day that I would be one thousand dollars better off if I had not undertaken the task. In saying this I do not wish to extol my labors. I have made honest endeavors to do all that I could. I do not regret that I undertook that labor, and anything of value I can suggest I will give to my successor in office. There is an index to any motion or resolution, and by reference to the name the remarks of any member can be easily found. Gentlemen, I thank you, gratefully, for the vote of appreciation and thanks which you have so kindly passed.

Dr. M. M. Fenner also remarked, in turn, that he had been Corresponding Secretary for the past two years. There had been little or no duty devolving upon the office, except what had been done during the hours of meeting. He expects nothing, as he had done nothing.

Dr. Alexander Wilder, the President elect, then addressed the meeting. He said:

"In taking the office which you have conferred upon me, it becomes me to accept it with grateful acknowledgments. Although the position was unsought and unexpected, the honor is none the less valuable, or to be prized. To occupy such a post, which has been so ably filled by others, is a reasonable object for any man's ambition; and while assuming its duties, I promise my earnest endeavors to merit the confidence which you have so kindly bestowed.

"It is fitting to speak in this connection of those who have preceded me. To your retiring President, in particular, has Medical Eclecticism been largely indebted. When an Eclectic physician was regarded as an impostor, and denounced as a quack and an empiric, and it required positiveness of purpose, he was an active laborer in the field, and a pioneer in the enterprise of scientific medical instruction. Now, that the friends of the cause can boast of achievements, after the lapse of a quarter of a century, it is a poetic justice that he should appear at the head of your organization, to witness what have been, in a great degree, his triumphs. Fortunate will it be if the office which he now vacates shall be filled as acceptably.

"The progress of Eclectic Medicine during the last twenty-five years illustrates vividly the rapidity with which public sentiment advances in our own times. Let glory rest perennially upon the memories of Morrow, Jones and Newton, and those who caught from these departed veterans their inspiration, and bore onward the standard of Medical Reform, till it was established upon its present impregnable and scientific basis. During the same period, in no art but the electric telegraph, do we find so great a progress. Then our practitioners were but a handful of men; now we are numbered by our thousands, and the ablest members of the medical profession in the Old World cheerfully give us credit for the valuable and innumerable contributions which we have made to surgical science and to Materia Medica.

"We have before us further work and achievement. Medical Eclecticism must no longer seek defenses. It must be aggressive.

We should secure appointments on sanitary commissions, boards of health, and as health officers. Our claims are as good as those of our competitors, if our scientific and other merits are equal. We are as regular. Our professional status should be as good. The prospect is certainly encouraging; and the next twenty-five years, we trust, is destined to place us at the head, not only in our own State, but in the United States. Thanking you once more for the honor you have conferred, I will detain you no further with any remarks.

Resolved, That M. M. Fenner, M. D., be added to the Board of Censors.

The Society then took a recess to meet at eight o'clock, at the Capitol, to listen to the annual address, and resolved to meet at eight o'clock to-morrow morning for business.

FIRST DAY—EVENING SESSION.

The meeting was called to order by the President, Dr. Alexander Wilder, of New York.

The annual address was delivered to a large audience, composed of members of the Legislature, citizens, and members of the society, by Dr. M. M. Fenner, of Jamestown. It will be found elsewhere.

Prof. Allen was called upon and made a few remarks, alluding to the greatness of the Empire State, not only as the center of commerce, but as the center of publications. He spoke in the highest terms of the liberality of the Legislature in printing the proceedings of the different medical societies. He referred to the great work of the Eclectics in developing our Materia Medica, by continued and persevering efforts to discover the properties of our indigenous plants. By circulating our transactions many townships will have the light and benefit of our researches, and physicians will be better able to cope with disease. He closed with remarks upon the present state of the society, and the Eclectic practice in the State, together with the increasing inquiry of the public for the truths and principles upheld by the various schools of medicine.

The Society adjourned till morning.

SECOND DAY—MORNING SESSION.

The meeting was opened at the time appointed, Dr. Wilder in the chair.

A communication was read from Prof. R. S. Newton, regretting his inability to be present.

Prof. J. M. Comins, appointed general essayist for this meeting, read a Paper upon Pepsin.

The subject was discussed by Drs. James Day, Aylsworth and others. Dr. Comins explained that he prepared his own pepsin; he fed the calf about one hour before killing, and by this means received the stomach when the follicles were secreting; this he emptied, and carefully picked out all particles of food. He then macerates for a few hours at one hundred degrees Fahrenheit. Too high a temperature destroys the pepsin, and it is not soluble in cold water. This he then rubs over a sharp edge, evaporates to a paste and adds starch.

Prof. James Day recommended Merck's (of Darmstadt) as a reliable article.

The paper was received and referred to the Committee on Publication.

Dr. H. E. Firth, of Kings county, read an essay upon "Labor."

Paper received, and referred to proper committee.

A paper upon the subject of Dyspepsia was received from Dr. C. C. Johnson, of Cattaraugus county.

Dr. D. E. Smith, of Brooklyn, read a paper on Phthisis Pulmonalis. Great importance was given in this essay to the treatment of this disease by the use of the inhaling tube, both for medication and aëration.

A discussion upon this subject was participated in by Dr. J. G. Fross, of Syracuse, and Dr. J. A. Martin, of Troy.

Thanks were voted to Dr. Smith for his essay, and the paper referred to Publishing Committee.

Prof. W. W. Hadley offered the following resolutions in regard to the organization of a National Eclectic Medical Association, which were unanimously adopted:

WHEREAS, This Society, at its annual meeting, held in 1867 (see pages 9 and 10 of the Transactions of this Society, Vol. 2, 1867), adopted a resolution to coöperate with other State Eclectic medical societies in organizing and holding a national association, and in forming and adopting a National Pharmacopœa, and

WHEREAS, these objects have not been accomplished in consequence of the opinion expressed by many of the members of each of the societies, that the time had not come for the carrying out of these measures, but, whereas, the various State societies and the Eclectic profession generally are now willing to coöperate in both of these measures, be it, therefore,

Resolved, That this Society appoint a committee of six from its own body, and recommend that each auxiliary medical society in the State appoint two, and the Eclectic Medical College of the city of New York appoint three delegates, to attend a national association during the month of September, 1869, at such place and time as may be agreed upon by a general committee, appointed by this Society, to correspond with similar committees of the various societies in the United States.

Resolved, That this committee consist of three, whose duty it shall be to prepare a letter, containing the action of this meeting upon this subject, and at once lay the same before the officers of the several State Societies, previous to their next annual meeting, all of which to take place before the time specified in September, 1869; and that this committee have full power to arrange with all other committees the time and places of meeting, and, in connection with committees of other societies, to issue the general call for the meeting.

Resolved, That, in addition to the number of regular delegates designated by each Society, that we appoint our other membership delegates at large, and that the Committee of Arrangements suggest to other societies this special point for consideration.

Resolved, That we suggest also, that, in States where there are no medical societies, that the entire Eclectic medical profession be invited to coöperate with the various organizations, and to attend the same meeting, as this would secure the coöperation of every interest and locality, making this work complete.

Resolved, That each State organization be recommended to make such appropriation of money as will enable the committees to do the necessary printing and mailing of circulars; and, if they think necessary, to insert a simple notice in some leading newspaper.

Resolved, That the Eclectic medical journals at Cincinnati, Philadelphia and New York be requested to publish all the proceedings connected with this special matter, and that the committee be instructed to furnish the matter as soon as possible.

Prof. William W. Hadley also offered the following:

WHEREAS, this, as well as other, Eclectic Medical Societies of the various States, have, at their annual meetings, expressed the necessity of having a National Eclectic Pharmacopœia, and

WHEREAS, these societies have appointed committees to correspond and coöperate with each other upon this subject, and, whereas, this matter has not been consummated, be it

Resolved, That this Society appoint three delegates to act as a committee in coöperation with similar committees, and for the same purpose, to make the necessary arrangements for preparing and

reporting, at the next annual meeting of the National Eclectic Medical Association, a National Eclectic Pharmacopœia.

Resolved, That there be also one delegate from each auxiliary society of the State, and three from the Eclectic Medical College of New York city.

Resolved, That this General Committee be requested to correspond with Prof. John King, of Cincinnati, and other gentlemen connected with the literature of the profession, as well as such persons as are connected with Pharmacy, and the various Eclectic preparations, with the view of aiding them in this work.

The resolutions were adopted.

A motion was made that delegates be considered eligible for membership upon payment of the fees, such delegates to sign the constitution at any subsequent meeting they may attend. It was amended that the signature to constitution may be by proxy; and then, upon vote, was lost.

Prof. W. W. Hadley then offered the following, which was carried:

WHEREAS, the names of L. E. Jones, M. D., of Cincinnati, Ohio; John King, M. D., of Cincinnati, Ohio; John Stow, M. D.. of Mass.; Horatio G. Newton, M. D., of Portland, Maine, and J. W. Johnston, M. D., of Hartford, Conn., were elected honorary members of this society, at its annual meeting in 1867 (see Transactions, Vol. 2, page 10),

Resolved, That these names be regularly published in the list of honorary members in the next annual report.

Resolved, That the name of W. R. Prince, which is omitted in the list of corresponding members, be replaced in the next annual report.

The President appointed as Committee on Pharmacopœia, Prof. R. S. Newton, H. E. Firth, M. D., and Prof. W. W. Hadley.

Dr. Aylesbury made some remarks upon the importance of the Pharmacopœia and its great advantages to the profession.

Dr. H. E. Firth declined the appointment in favor of Prof. James Day.

Prof. James Day, of New York, was thereupon appointed on Committe on Pharmacopœia.

The Committee on the Eclectic Medical College of New York, and scholarships, reports the following:

WHEREAS, at the last annual meeting of this society (see Transactions, Vol. 2, page 21), the following resolution was passed, "*Resolved*, That we recommend to the Faculty and Board of Trustees of the Eclectic Medical College of the city of New York (see previous

resolutions), that they issue certificates of scholarship, which, for the sum of one hundred and fifty dollars ($150) each, shall be a guarantee to the holder thereof, of the privilege of attending lectures in said College until graduation; such certificate not to be transferable after the first attendance." "Also, the establishment of permanent scholarships (or scholarships for a limited period at a proportionate rate), at a sum which may be agreed upon by the Board of Trustees of said institution, for the building up and sustaining such institution, thus giving it a permanent character; which scholarships shall be a guarantee to the holder thereof of the privilege of sending one student constantly to said College."

In accordance with the above resolutions of request, as well as the expression of this Society made to the Board of Trustees of the Eclectic Medical College of New York, the undersigned will make the following report:

At a meeting of the Board of Trustees, held February 15, 1868, it was resolved to issue and sell, for the purpose of "purchasing the property now occupied as the Dispensary," under the control of the Board of Trustees, and for the support of which both the city and State have made donations of money (in which building the College lectures are delivered), fifty scholarships of five hundred dollars ($500) each, entitling the holder to an average of one student per term, for each year of the period of ten years, and also fifty scholarships at the rate of one thousand dollars ($1,000) each, entitling the holder in perpetuity to send an average of one student per term thereafter; also to issue scholarships for one hundred and fifty dollars ($150), entitling the holder to tuition until he may graduate. In accordance with the following resolutions, fifty scholarships of five hundred dollars ($500), fifty of one thousand dollars ($1,000), and one hundred of one hundred and fifty dollars ($150), have been prepared. A copy of each is herewith appended.

As this Society made the request, and promised to give the College its full coöperation and support, it is now hoped that more or less of its members will buy such of these scholarships as they feel willing and able to take, for the purpose of purchasing the building now occupied by the College. A contract for its purchase has been made, and there is almost money enough on hand to make the first payment. Signed, G. R. S. Newton, and other members of the committee.

Dr. A. Wilder, the President, spoke in behalf of the College, in brief as follows: The scholarships ordered by this Society are now ready. They are of three kinds, the first, a single scholarship, entitles the holder to attend as many regular lectures delivered by

the Faculty of the College as he may desire, until he is graduated. These cost one hundred and fifty dollars. The second, or five hundred dollar scholarship, entitles the holder or his assigns to keep in attendance upon all the regular lectures delivered by the Faculty of the College one student, annually, during the period of ten years from date of issue, and it is further provided that if at any session he has no student in attendance, two or more may attend subsequently, to fill the time so lost. The third, the perpetual scholarship, costing one thousand dollars, is the same as the ten-year certificate, only that you may keep in attendance one student, annually, forever. (Samples were shown the Society.) Part payment has been made upon the present building, and we are in want of funds. Would like to submit to the Society, or to the individual members, this matter of scholarships. By the sale of three or four, this institution could be so based as to do something for three or four years, at any rate. We can do nothing as a medical society without a College. The Faculty is good, and the College is rising in estimation. It is the only school of note east of the Allegany Mountains. We can now bargain for the building, close negotiations, and be independent. We should make the Society and College go hand in hand, like man and wife, through the world.

Dr. James Day said: "That, when a delegate to Boston, he was informed that the sympathy of the Massachusetts Society was in behalf of the College. All they want is the men of New York, who are present, to investigate, to show by their actions that they had confidence in the matter, and, by the contributions and subscriptions of moneyed men, secure the stability of the Institution, when they will heartily coöperate by sending students, and will themselves raise a sum of money—at least $20,000."

Prof. Freeman remarked, that the manner in which this is brought before the Society gives every member an opportunity to see his particular influence in the cause. He described the advantages of the investment as a money investment, that, by keeping a student in the College, you receive your money with full interest, you are doing good to the College and the whole profession.

Resolved, That a copy of the transactions of 1867 be presented to each member of the Legislature.

Voted that a Committee on Locations for Practitioners be appointed.

Prof. Paul W. Allen was appointed such committee.

The name of Prof. James R. Buchanan, formerly Professor of Physiology in Cincinnati, but now a resident of New York, was proposed for Honorary Membership.

The Censors reported favorably.

Edwin Freeman, M. D., moved to suspend the rule causing him to be received through delegation, and to proceed at once to ballot.

The motion prevailed, and Prof. Buchanan was unanimously elected; Drs. Smith and Freeman acting as tellers.

The President announced the appointments for the ensuing year, as follows:

Orator. Joseph R. Buchanan, M. D.; alternate, J. M. F. Browne, M. D.

General Essayists. J. G. Fross, M. D., J. A. Fitch, M. D., and Mrs. Maria B. Hayden, M. D.

Essayists at semi-annual meeting. B. M. Genung, M. D., C. T. Greenleaf, M. D., H. C. Gazlay, M. D., James N. Betts, M. D., and Prince A. Morrow, M. D.

Surgery. M. M. Fenner, M. D., and R. J. Burton, M. D.

Obstetrics. H. E. Firth, M. D., and J. M. Comins, M. D.

Medical Hygiene. Orin Davis, M. D., C. C. Johnson, M. D., and O. H. Simons, M. D.

Materia Medica. D. E. Smith, M. D., Josiah A. Martin, M. D., and J. R. Robens, M. D.

Theory and Practice in Medicine. Lyman Stanton, M. D., J. Y. Tuthill, M. D., and James Fenner, M. D.

Chemistry and Pharmacy. James Day, M. D., and W. R. Hayden, M. D.

Progress of Eclectic Medicine. Samuel Tuthill, M. D., and P. W. Allen, M. D.

Medical Instruction and Eclectic Medical Institutions. E. Freeman, M. D., and A. P. Parsons, M. D.

Medical Statistics. R. S. Newton, M. D., and C. C. Johnson, M. D.

Prof. E. Freeman moved that, when the Society should adjourn, it adjourn to hold the next semi-annual meeting on the last Wednesday and Thursday in June (23d and 24th), in New York. It was moved to amend, that the meeting be in Syracuse. The amendment was lost, and the original motion prevailed.

The vote was reconsidered in regard to supplying each member with five copies of the Transactions, and it was finally passed that each member receive three.

Thanks and due compensation were voted to Dr. J. Edwin Danelson for his services in reporting the proceedings of the present session.

Prof. E. Freeman, of Cincinnati, and H. D. Garrison, M. D., of Chicago, were proposed as honorary members. Referred to Board of Censors. The Board recommended the favorable consideration of the Society in case of those gentlemen. The report was adopted.

Thanks were voted the Argus and Evening Journal and other papers that have published the minutes of the Society.

Resolved, That the thanks of this Society be tendered the Assembly for the use of the Assembly Chamber on the previous evening (27th inst.).

The President appointed the following as delegates to the National Convention: Drs. Ford, Firth, Fross, Morrow, Pease and Hadley.

The following were appointed as a committee on local arrangements for next annual meeting: Drs. Russell, Simons and Burton.

Dr. Harmon Pease read an essay on the "True Medical System;" also the reports of several cases; and, also, a Few Thoughts in Rhyme. The papers were received, and referred to publishing committee.

Dr. Wm. H. Bowlsby, of Brooklyn, read a paper on "Arsenic." He also reported cases of fibrinated clots, poisoning by unwholesome sauces, and a case of dropsy.

Referred to committee on publication.

Prof. Allen made some remarks upon the importance of having physicians keep true and accurate statistics of cases in their practice. It was suggested that they make out a list of the diseases, and by marks and dots account for every case. At the end of each year let them report to the Society the number treated, and the numbers cured and not cured.

Dr. Johnson, of Connecticut, expressed his gratitude to the members of the Society, for complimenting him with honorary membership. In the course of his address he compared the position of Eclectic medicine twenty-five years ago, when he visited a meeting in this State, with the position and strength of the Society at the present day. He laid particular stress upon the duty and importance of the Eclectic physicians sustaining their medical colleges. He complimented highly the endeavors and talent of the present Faculty,

having recently visited the College in person and listened to the lecturers. The medical journals and literature must be well supported. These are weapons, and must be wielded to break down the medical exclusiveness all over the land.

Prof. E. Freeman, of the Eclectic Medical College of the city of New York, spoke in acknowledgment of the compliments paid to the College by Dr. Johnson. He detailed his conduct during the late war, in opposition to the influences exerted by Old School surgeons.

Prof. James Day spoke to the meeting, "The Old School are to be credited for the perfection of their pharmacy. In our own School there has been a determined opposition to free investigation and an apparent desire to cloak the proper laws of organic chemistry. When we can analyze our medicines, and when we can give the chemical properties and their actions then can we call these our own, and no other School can steal our thunder. The Old School practitioners buy our medicines openly and use them openly. In regard to our College, they believe that the professors of our College are men of intelligence. They think us also as exclusive as they are. They give us credit for our remedies, and ask for the Eclectic Pharmacopœia, and say they will publish them in their own Transactions. This is the sentiment of these men; and, although we must fight, yet, if they are determined to do what is right, we must, like men, meet them half way.

The appointments to the Eclectic Medical Societies of other States, were as follows:

Massachusetts,..... Drs. R. S. Newton and Wm. R. Hayden.
Maine,..... Drs. Paul W. Allen and H. E. Firth.
Vermont,..... Drs. J. A. Martin and D. Freeman.
Connecticut,..... Drs. Sam'l Tuthill and P. A. Morrow.
Pennsylvania, ... Drs. D. E. Smith and A. W. Russell.
Illinois,..... Drs. M. M. Fenner and A. P. Parsons.
Indiana, ... Drs. J. M. Comins and J. G. Fross.
Ohio, ... Dr. J. Y. Tuthill and Prof. Jas. Day.
Iowa, ... Drs. O. H. Simons and Noah Dean.
Canada,..... Profs. W. W. Hadley and J. M. F. Browne.

Dr. O. H. Simons reported an interesting case. Referred.

One hundred dollars was voted the Recording Secretary, as compensation for him to compile the next volume of Transactions.

The President closed the session with a few remarks upon the harmony and success of the proceedings, and the flattering impression made upon the Legislature and our friends at large. He hoped our next annual meeting would be a still larger one, for as we increase in numbers so will we increase in influence. The Eclectic Medical Society of New York is a fixed fact. Let us go on from conquering to conquest.

The Society then adjourned.

WM. W. HADLEY,
Recording Secretary.

SEMI-ANNUAL MEETING OF THE ECLECTIC MEDICAL SOCIETY OF THE STATE OF NEW YORK.

FIRST DAY—MORNING SESSION.

The seventh semi-annual meeting of the Eclectic Medical Society of the State of New York was held at Steinway Hall, June 23, 1869. At 10 o'clock A. M., the meeting was called to order by the President, Alexander Wilder, M. D. The roll of officers and members was called by the Secretary, Prof. W. W. Hadley, of Brooklyn, about fifty responding.

The credentials of delegates from auxiliary societies were then presented and received. The President invited all Eclectic physicians from other States to take seats with the Society.

The journal of the annual meeting at Albany was then read and approved.

Resolved, That all applications for membership be referred at once to the Board of Censors.

The Treasurer did not come prepared with any special report, but said that he had received seventy-five dollars since the last annual meeting.

Dr. R. S. Newton, a delegate to the State Society of Massachusetts, reported favorably of its condition. He also said that he had been in communication with State societies in reference to the proposed National Convention to be held soon, and that they had expressed their willingness to take part therein. Maine, Massachusetts, Connecticut, New York, Pennsylvania, Ohio, Indiana, Illinois, Wisconsin, Iowa, Kansas, Vermont and Minnesota have organized societies, and they have also formed one in Georgia. Michigan and Nebraska would organize the coming month. About Rhode Island he could not speak. When the New York Society was formed, the society in Massachusetts and the one in Connecticut were the only ones East, and that in Ohio the only one West. Upon the formation of our own Society, circulars were issued asking the profession to organize into societies. This has been done, and to-day we find the Eclectic pro-

fession strong in its unity and working in harmony. He stated the whole number of the physicians who have attended lectures at Eclectic medical colleges, and are directly connected with the Eclectic profession, to be between seven and eight thousand.

Resolved, That a committee of three be appointed by the Chair to arrange an order of business for the meeting. Drs. H. Pease, D. E. Smith and J. M. F. Browne were accordingly appointed.

The censors reported the names of Charles H. Archer, of New York city, W. B. Preston, Dansville, Livingston county, and M. F. Marsh, of Ellington, Chautauqua county, for membership. Several names were reported unfavorably, inasmuch as the persons had not come as delegates from auxiliary societies.

Upon ballot, Drs. Freeman and Fitch acting as tellers, the persons above named were elected to membership.

The committee on programme of business reported in brief.

A communication was then read from Dr. J. H. Fitch, in which certain charges of improper and unprofessional conduct were made against Dr. W. H. Bowlsby, of Brooklyn, in regard to his operations with the Eclectic Dispensary there.

Upon motion, Drs. Parsons, Preston, Owens, Pease and Stoddard were appointed a committee by the Chair to notify the defendant and investigate into charges preferred.

This closed the morning session, and an adjournment was taken for an hour.

FIRST DAY—AFTERNOON SESSION.

At two o'clock the meeting was called to order, the President in the chair.

Dr. Newton referred in appropriate terms of respect to the late W. R. Prince, a corresponding member, who died in March last, and to the late Edward F. Garvin, a member of the auxiliary society and State society, who died in this city in the month of April last. He said that the latter gentleman had, only two days before he died, written him a letter, offering to the Society a tract of land in Flushing, and had drawn a check of $100 in favor of their College. He moved a committee to report resolutions of respect. The Chair named as such committee Drs. Newton, Hayden and Firth.

Prof. J. M. F. Browne proposed two amendments to the by-laws, to the first section of article four, giving the President power to

appoint a speaker and essayists for the semi-annual as well as the annual meeting; to section twelve, arranging a new order of business.

Prof. J. M. F. Browne, Professor of Physiology and Pathology in the Eclectic Medical College of the city of New York, read a paper on "Trichina Spiralis and Trichinosis." The paper was referred to the Committee on Publication.

The President of the Society, Dr. Alexander Wilder, then delivered the semi-annual address, which was listened to with deep interest, and was frequently applauded. It appears elsewhere.

Resolved, that it be received, with the thanks of the Society, and referred to the Publishing Committee.

On motion it was resolved that one thousand copies be printed for the use of the members of the Society. Carried.

Prof. Edwin Freeman read an interesting paper on "Fistula in Ano," describing the different forms and their successful treatment by the combination of the ligature and caustic, completely dispensing with the knife.

Prof. Newton remarked that, in the treatment of this difficulty alone, our school has gained great popularity and advantage. But few authors of the present day propose any treatment but the knife; and yet with the history of its employment is associated the death of many, both in this country and Europe. So certain has been the result from the use of these remedies that the treatment is, in our school, regarded as a common-place matter, and has lost much of that importance which we have demanded for it. Dr. Newton has not, in a single instance, used the knife for the past 25 years, and has been successful in all cases, except where the complaint was complicated with a broken-down state of the system, tending to or running into pulmonary consumption. There is no possible danger following the use of the ligature. He expressed pleasure that the Professor had taken up this subject, because now it will become a part of the library of every Eclectic physician, and a source of easy reference to the student.

Drs. Allen and Stoddard corroborated these remarks. The paper was received and referred to the appropriate committee.

The Society then adjourned until 10 o'clock the following morning.

SECOND DAY—MORNING SESSION.

The meeting was called to order by the President, Alexander Wilder, M. D., at the appointed time.

Dr. D. E. Smith, of Brooklyn, reported a case of protracted ulcer of the knee, diagnosticated as being of a cancerous nature, and treated as such with encouraging results.

Prof. Hallenbaek, of Philadelphia, made a few remarks upon the colleges of that city.

Prof. P. W. Allen spoke in regard to the speculum invented by H. B. Aylworth, and moved that a committee be appointed to examine it and report at the next meeting. Carried.

Doctors P. W. Allen, Jas. M. Comins and J. Y. Tuthill were appointed such committee.

Dr. Aylworth related cases of its use, its manner of operation, its certainty in diagnosis, and its convenience in medication.

It was moved, that, as the full reports of the proceedings of this meeting are printed in the "World" and "Tribune," the Society purchase two hundred copies of each paper. Carried.

Mr. H. L. Stuart was designated to carry out this resolution.

Prof. Newton announced the death of Dr. Salisbury of Corry, Pa. Referred to the Committee on Resolutions.

Doctors Hallenbaek, Buchanan, McNichol and Isaacs were received as delegates from Pennsylvania; Drs. Mann, Linquist and Robinson, from Connecticut.

The child-woman, Sophia Gautz, nearly four years old, who has menstruated for nearly two years, and has other peculiar developments of a young woman, was presented before the society.

The names of Doctors Sylvester Roe, Jr., and Homer L. Sweet were reported by the Censors and they were duly elected.

Dr. J. L. Roe exhibited a truss which retains a hernia, with but little or no pressure on the back.

Dr. R. S. Newton read an article on the advantages of the concentrated preparations over the crude articles.

Prof. Paul W. Allen read a pamphlet which he had been requested to prepare for distribution among families. The headings are: The Eclectic System of Medicine; What is its origin? What are its principles? What are its remedies? What is its popularity and organization? What is its literature? What is the success of the Eclectic practice? What are its claims to popular patronage?

Charges were then offered by Dr. W. H. Bowlsby against Doctors H. E. Firth and D. E. Smith. These were not at first entertained by the Society but the vote was reconsidered; and they were referred to the Committee appointed yesterday with instructions to investigate at once.

Recess till 2 o'clock.

SECOND DAY—AFTERNOON SESSION.

The session opened according to adjournment, the President in the chair.

Dr. A. P. Parsons, Chairman of the Committee appointed for the purpose, reported in case of charges against Dr. Wm. H. Bowlsby, that those charges had been fully sustained in each of the specifications. Signed by the members of the Committee.

He also reported upon the charges against Drs. Firth and Smith, that from lack of proof, the committee were unable to proceed. Signed by the Committee.

The report was received and the Committee discharged.

Discussion followed, participated in by Drs. Bowlsby, Firth, Warner and Allen.

Dr. Warner moved to adopt the report of the Committee. The motion was carried.

Prof. R. S. Newton moved his expulsion. The roll was called, and the motion carried by the required vote of four-fifths of the members present.

The report in reference to Drs. Firth and Smith was laid upon the table and the Committee discharged.

Dr. Allen presented a bill of expenses on transactions. Ordered paid.

Prof. Edwin Freeman reported a case of ulceration of the bladder, recommending in the highest terms the use of Rudbeckia laciniata and Hydrangea arborescens.

Dr. D. E. Smith corroborated the statement of Prof. Freeman as the good results following the use of these agents.

Prof. Joseph R. Buchanan, at the call of the Society, delivered a short and eloquent address.

Dr. A. W. Russell, of Albany, presented the following resolution, prefacing it with remarks bearing directly upon the point:

Resolved, That the committee appointed by this Society at its general meeting in January last be requested to complete their correspondence with the several State Societies, and have the National Convention called to meet at Pittsburgh, Pa., on the third Wednesday of September, 1870.

Remarks were made by Drs. Newton, Wilder, Pease, Samuel Tuthill, H. S. Firth, Buchanan, Whitney and Warner. The principal places suggested were Philadelphia, New York, Cincinnati and Chicago.

The amendment was offered by Dr. Freeman that New York city be recommended as the place of meeting. Carried, and the resolution adopted.

The committee on resolutions of respect were granted further time.

The following resolution was adopted:

Resolved, That we, the members of this Society, recognize our obligations to the press of the city for the very full and favorable reports of our proceedings, and that we hereby tender our thanks for the attention thus received.

The thanks of the Society were also presented to the committee of arrangements and to the reporters of the press.

Prof. Z. Freeman, of Cincinnati, was introduced.

Upon motion, the President was added to the committee of arrangements to prepare for the annual meeting at Albany, in January next.

The President then closed the session with a few remarks, asking the members to be prompt in preparing their articles for the annual meeting; complimenting them for the interest shown during this session, for the good attendance and general good feeling manifested. He also expressed the hope that those now in attendance would all be present at the next meeting.

Adjourned.

W. W. HADLEY, M. D.,
Secretary.

I. EDWIN DANELSON,
Assistant Secretary

LIBERAL MEDICINE.

Annual Address before the Eclectic Medical Society of the State of New York, delivered in the Assembly Chamber, Albany, January 27th, 1869, by M. M. FENNER, M. D., Corresponding Secretary of the Society.

Fellows of the Society:

The dictates of wisdom, and the progressive spirit of the times alike, indicate the propriety of a greater degree of liberality and fraternal commingling on the part of those who have at heart the real good of medical science. That its cultivation and advancement might be materially aided by kindly intercourse among the several sects and schools of medicine, no one will deny. A respectful consideration of the teachings and experience of each would thus be gained which would inure greatly to the accumulation of valuable medical knowledge and skill.

The tendency of the times is unmistakably in the direction of liberality of views, enlarged scope of thought and generous regard for opposing sentiments. Is it too much to ask, is it too much to expect in the interest of humanity, that rival medical sects should deport themselves in a manner more consonant with the spirit of the age; moderate their bigotry, professional jealousies and exclusiveness of which the community has long since tired; open their eyes respectfully and generously upon each other; and devote themselves alike for the good of humanity and the development of the whole of the noble art they have in keeping by interchanging views, and the acquirement and proper practical combination of all the information and valuable experience known to all the various schools?

Heretofore great medical discoveries have usually been employed as bases for new systems and sects, rather than been contributed and applied, along with the already existing stock of information, toward the perfection of medical science as a whole. Thus have arisen a variety of "pathies." This has been owing very greatly to the bigotry and intolerance on the part of the dominant school, that have uniformly resisted and fought against every great and beneficial medical innovation. But it has been due, in a measure, also, to the ambition of medical discoverers or reformers themselves; the frigid and repulsive manner in which any real advancements were regarded by the established school, driving, and the incom-

plete developments of the science inviting, to such a course. Each of these schools has a large amount of truth connected with it, applicable in the highest sense of usefulness in its especial sphere; but neither, as heretofore constituted and developed independently, can seriously pretend to occupy the whole field of medical science. In the usefulness of the profession to community, this tendency to exclusiveness and division has been a misfortune, and this is a subject of very direct and vital interest to the people at large. The patrons of one school have been practically denied the benefits of all the others. Considered solely with reference to the development of medical science in all its parts, however, this may be regarded in the light of a fortunate circumstance, if, indeed, some cultivated body of medical men, more ambitious for the general well-being of mankind than for sectarian fealty, will ever undertake the labor of a judicious and impartial investigation into the merits of each, with a view to their combination into a system adapted to the practical application of *all the excellencies of all.* This division of the expositors of medical science into medical sects has given rise to an emulation that has acted as a powerful stimulus to exertion for the fullest development of each. Could the excellencies of the various schools be recognized and combined into a medical system, it is evident that a practice would thereby be established materially in advance of that of any heretofore existing isolated sect. To such a work as this the Eclectic School of Medicine is dedicated. To this work has it been devoted for the past quarter of a century. Earnestly laboring for truth, culling it alike from special systems and from the broader fields yet unexplored, it has industriously erected it into a system founded upon principles of liberality and unbiassed by sectarian rules. The Eclectic School is based on principles of truth; it is liberal and cosmopolitan. It believes itself to occupy a position at once so consistent with sound philosophy and so impartial, as to offer an inviting rallying-point for the several conflicting sects; and while it will press onward with renewed courage to the perfection of its system, it believes the time propitious for the invitation to join in cordial and fraternal coöperation, which is extended to all who have at heart the highest good of medical science. As such special system has its well-developed and acknowledged superiority in given conditions and under given circumstances, it will readily commend itself to the thinking mind that the true Eclectic physician, who in liberal and respectful spirit, "with malice toward none, and

charity for all," untrammeled by preconceived prejudices and unrestrained by arbitrary rules; having in view the one object of securing such a fund of information and experience, derived from any and all sources, as shall enable him to heal the greatest number and variety of human maladies, and this in a manner most pleasant and least burdensome and expensive to the suffering—who should thus acquaint himself familiarly and thoroughly with the teachings and practice of all sects, and make use of the especial excellencies of each in his practice, adapting them appropriately to the requirements of individual cases—that such a physician, and such only, would enjoy, in the highest sense compatible with human wisdom, the opportunity of working real good, both to community and the profession. It is now a common recurrence in daily practice for the patient seriously sick to change, during the progress of the disease, his attending physician for one of another medical school, following another and different line of practice; and, while serious results sometimes follow, owing to the change being an ill-advised one or from some other untoward circumstance, it must, in candor, be acknowledged that it is often done with the most salutary results; the patient, who has lingered for weeks and weeks perhaps, becoming used to and unimpressible by the routine remedies of a given system, rapidly rallying and recovering under the change. The lesson taught by such occurrences is an instructive one, and should be heeded. To avoid the real or apparent necessity for such change, and the annoyance and mortification to both patient and physician consequent thereupon; to secure all the good that can be effected by such change, and avoid all the evil consequences resulting from it when premature or ill-advised; to enable the attending physician to deport intelligently and fraternally with one from any sect and under any circumstances, thereby permitting consultations with any physician of the patient's choice; in a word, to effect all the good and avoid all the injurious consequences of change or dismissal; for these, and other considerations of the highest moment, let the physician be a physician in the largest sense of the term—familiar with medical science as found in all its sects and intricate recesses. Let him have at hand *all* the weapons known to the science and art of medicine all of their multifarious ramifications, and so be able, in the abundance and efficiency of means, to cope with difficulties of the occasion. No less than this ought to satisfy the conscience and the ambition of the medical man; no less ought community to expect of him, and

even then his skill will often be put sorely to the test, and, indeed, at times be wholly baffled by the grave and varying character of human ailments.

As the general of the army may so maneuvre his various corps as to bring some one or more all the time to bear effectively against the enemy, while the commander of a given corps can do execution only in a limited and given field of operations, so, the physician, who knows how to apply the excellencies of all the medical schools, may achieve such a measure of success in the wide field of disease at all times and under all circumstances, as is wholly unknown to the champion of a given sect or party, however astute, experienced, learned. The last achieves a similar success only in that limited range of cases to which his remedies are more particularly adapted, while others of his patients, after wasting anxiety, time and expense, have finally, though perhaps reluctantly, to seek relief in other systems.

It is this liberal and exhaustive knowledge of medical science as a whole, which can only be attained by a proper respect *for* and a thorough study and harmonizing *of* all the diverse systems, and this only, that can assure the most successful management of all diseases under all the varying circumstances of type, degree, age, sex, temperament, condition.

Liberality of principle, scope of thought and research, untiring energy and unswerving devotion are the requisites in the medical man to extended success in the treatment of all affections, both acute and chronic, simple and complex, ranging from an influenza to a grave typhoid, a simple ulcer to a schirrous cancer, a bronchial cough to a grave consumption.

It is the part of wisdom to heed the lessons of the hour, recognize the real merit in each and all, and not blindly turn away and denounce. Though there be rubbish and apparent inconsistencies in systems needing, and oftentime receiving, a rooting out, let us not deceive ourselves on this account respecting the undoubted good of each. Medical sects are seldom generously disposed toward each other. Opposing sects, for example, see in Homœopathy only the finely wrought and apparently absurd theories; some are lost in their endeavors to grasp an idea of the higher attenuations; and consider "triturations," "dilutions," "attenuations," "potencies," alike a deception, and cast away the whole in contempt. The Old School is indicated by its lancet, smarting blisters, gnawing

setons, spongy gums, drooling mouths, toothless jaws, lingering rheumatic pains and aches, deformed limbs and such like evidences of the mal-treated, mineral-poisoned, withering body; while Botanic medicine is persistently associated by its adversaries along with lobelia emetics, red pepper teas, drenching sweats, innumerable syrups and decoctions of smart weed, wormwood, and the like nauseous and repulsive herbs. These are the extremes. They are weapons of derision, wielded with more or less of plausibility by the adherents of the several sects with intent to influence community to the prejudices of their rival systems. Let no one be deceived thereby. Some elements of all sects have their virtues and their appropriate places. In the various acute diseases, fevers, inflammations, where the patient is disturbed and irritated in his every nerve and fibre, it is not sound practice to attempt the introduction of much material substance in the way either of medicine or food into his system. Here the practitioner of liberal medicine, without stopping to quarrel with any fallacy he may conceive to attach to infinitesimal reckoning, will proceed to the administration of the proper remedies in minute doses and inoffensive form, frequently repeated, with a result, generally speaking, highly satisfactory, both to his patient and himself. Whereas, a persistence under such circumstances in the old, and let us indulge the hope, soon-to-become obsolete style of large and offensive doses, must often entail the disagreeable necessity of yielding up a patient after repeated and ineffectual efforts at controlling the disease, into the hands of a physician who *will* thus administer, and seeing him thus comfortably and satisfactorily recover. Indeed, no properly-informed physician at the present day would risk himself at denying the prompt and specific action in minute doses of aconite, veratrum and gelsemimum in fever, belladonna and bryonia in acute delirium, spongia and sanguinaria in croup, bi-chromate of potassa in sore throat, leptandrin in inflamed liver, ipecac in inflamed lungs, podophyllin in inflamed bowels, phytolacca and iron in diphtheria, veratrum album in cholera morbus; and so on through a long list of specific agents. So, also, there are cases of chronic disease where the severe counter-irritation of the Old School and many of the less objectional mineral remedies which it has introduced, are altogether indispensable to the accomplishment of a cure in the present state of the science. But it is, after all, to the long list of vegetable remedies, brought forward in great part by Botanic physicians, but greatly enlarged,

proved, concentrated and adapted by Eclectics during the past half century, that we are to look for our main dependence in operating in the wide domain of acute and chronic disease. Often they may be administered in minute doses. Very generally they may be given in a form unobjectionable to the patient's taste. Frequently, they must be combined with less objectionable mineral remedies and with counter-irritation. They must often be aided by hydropathic appliances, and occasionally they can receive better aid from electricity or from the various methods of the movement cure. But, whatever else is used *with* them, is merely adjunct *to* them. They *must* be used in order to any extended success in the general field of disease, and often in the bulkier form, as the strong man of labor requires his meat in liberal quantities for adequate sustenance. It is a trite saying, and undoubtedly a true one, that "There are plants in every locality sufficient for the cure of all its ailments." The truth of this popular old adage appears clearer as research and development in the vegetable kingdom extend. It is owing to the exceeding value of these agents that Eclectics have given so largely of their attention and labor to explorations and development in this direction. They are, indeed, absolutely indispensable to an enlightened practice of the healing art, in the present stage of its progress; and community could no more afford to be without this priceless fruit of Botanic and Eclectic labor, which it now constantly enjoys almost without a thought, it having found its way to a very considerable extent into other medical systems, than it could afford to go back to the use of the sickle and the wooden plow.

Hydropathy also has wrought reforms in the treatment of the sick that richly entitle its practitioners to remembrance and lasting gratitude. It taught the people, and, through them, the medical faculty always how to learn the needless torture and often irreparable harm of denying to the fevered patient freedom in the use of cold water, that greatest of nature's restorative agents. It is further to be credited for much of the present knowledge respecting the exceeding value of "baths," "packs," "frictions" and "diet." Also much praise might be awarded to the treatment by electricity alone, and also to the movement cure, extended applications of each of which are now made a speciality, independent of other means. Each of these various methods has its usefulness in a more or less extended sphere. The champion of either will work great good in very many instances, though from limitation of means he must also fail in many.

It is by the conjoined use of all of these means appropriately adapted to individual cases, in the hands of the physician of ability, liberality and skill, and by that only, that the highest degree of excellence and success can be attained in the management of the long list of acute and chronic medical and surgical diseases. Physicians entertaining the liberal and comprehensive views which we have enumerated, and making daily application of them in their medical and surgical practice, would prefer to adopt the title and style simply of "physician and surgeon," as a distinction from any of the special "pathies," were it not that a body of medical men exists maintaining precisely this standing, designated by the comprehensive and appropriate term Eclectic. The distinctive doctrines of the Eclectic School of Physicians are too familiar to require formal statement. As its name implies it has reference to *perpetual progress*, and takes into respectful consideration *every known medical truth*. It adopts all known facts of medical or surgical value wherever found, no sources of information being too lowly, as none are too high for it to apply to for further enlightenment. It is opposed to that assumption of professional arrogance that is too haughty to learn new medical truths originating outside the established schools; that is accustomed to look back into the past, rather than to the present and future, for brilliant medical and surgical achievements; and that bewails the palmy days of medical science, associated in its views only with the great historical names that have lived, had their days of usefulness and long since passed away. Eclecticism acknowledges with gratitude the services rendered the science by the sages of old medical lore, and gratefully appropriates whatever of value still attaches to the results of their labors. It, however, does not permit these transcendent lights of the past to obscure its view of the excellencies of the present and the needs of the future. It has vividly in mind, moreover, that practice as handed down to us by the historic savans would be mal-practice today, so great have been the advancements of the science; and that the achievment of such results gives rise to claims of modern cultivators of the science not to be rejected. It would not distort its sentiment of veneration for the past into a depreciation of the present, and a degeneration in the future. It is accustomed to weigh facts and appropriate them according to their value, without regard to the source whence they emanate. It takes opinions at precisely the value of the facts they are based upon, attaching little importance to the

prestige of names. It is opposed to what is known as the aristocracy of the profession; that sentiment of *caste*, which rejects valuable contributions from a source which medical bigots are pleased to call "irregular," and, consequently, "not respectable;" outraging every sense of justice, and doing violence to the American doctrine of equal rights and fair play for all. In this sense Eclecticism claims to be distinctively American in its constitution and sympathies; its instincts and tendencies harmonizing with the free institutions of the land. It thus opposes itself to all tendencies towards caste in the medical profession, and to all aristocratic professional oligarchies of what kind soever. While Eclecticism accepts the information of value transmitted by the medical fathers as the common legacy of the profession, and attaches as much importance to it as its actual value will warrant, it does not accept it as the grand *finalé* of professional aspirations, and as a bar to further investigations and progress in the science. *It selects, develops and applies, in a system based upon cosmopolitan thought and ideas, all the excellencies of all the medical sects.* Its work, however, does not cease with this liberal, extended and impartial compilation and adaptation. Its investigations extend into unexplored fields in all directions as well. Its contributions to Pathology have wrought radical reforms, now universally adopted by the profession in that most important department of science; its Therapeutics have compelled almost an entire change in medical practice; and its additions to, and development of, the Materia Medica, mostly from the vegetable kingdom, in which its research has been particularly zealous during the past quarter of a century, owing to an abiding faith, amounting almost to tradition that, in this direction, lay innocent but potent remedies competent to take the place of the pernicious minerals formerly in use, have, perhaps, exceeded in real value all that was known in this important branch of the science prior to that period. These reforms have accomplished their wished-for and inevitable result, and a change of treatment of disease from a depleting and pernicious to a sustaining and salutary one is the consequence—the abstraction of blood and salivation by mercury being scarcely known at the present time except as matter of medical record.

Fellows of the Eclectic Medical Society, radical changes and mighty advances have been wrought in the healing art. This result is due very largely to the influence of your efforts. Reform, or liberal medicine, has much cause for honest pride in past achievements.

Medical science is, however, of vast proportions, and much of it is beyond the ken of human wisdom as at present developed. Encouraged in view of the past, we may be, yet there is between us and the perfection of the science we cultivate an immeasurable distance. To the mighty work of its continued development toward perfection, let us, on the occasion of this, our annual gathering, dedicate ourselves anew, and, as an important step in that direction, let us invoke the sympathy and kindly coöperation in fraternal fellowship of all good men, systems and sects, whose hopes and labors are directed, although through different ways, to the achievement of the same great and noble purpose.

PEPSIN AS A THERAPEUTIC AGENT.

Read before the Annual Meeting of the Eclectic Medical Society of the State of New York, January 28th, 1869, by JAMES M. COMINS, M. D., Professor of Obstetrics, and Diseases of Women and Children, in the Eclectic Medical College of New York.

There are several morbid physiological conditions of the human system, in which, with the remedies laid down in the Materia Medica, we often fail to bring about a healthy action; many times, perhaps, by not studying the process of digestion, the repair and decay of the physical organization. In consideration of these facts I would call your attention to the pepsin. I have used it in many cases with very excellent success, where other remedies, that seemed to be indicated, have failed to bring about the desired result. The process of digestion has been well known since the experiments of Dr. Beaumont in the years 1825 to 1832, and since has been further elucidated by many eminent chemists by proving the solubility of the various articles of food in the gastric juice, and the manufacture of that food into the living tissues; constantly building up the being, that is as constantly disintegrating. We have learned the different elements of the various articles of food; we know the various chemical compounds of the human system; but how those inorganic chemical elements are transformed into living substance, we know not. The first change, however, thus far discovered, is in the transformation of those materials used as aliment, by the action of the gastric juice. A very important element of that secretion is the free acid—hydrochloric by some asserted, lactic by others—for, without the acid, the gastric juice has no solvent powers upon articles of food; it is fully neutralized by the alkalies or their carbonates. The most important element, aside from the free acid, is its organic matter or *ferment*, which is known by the name of pepsin. It is an anatomical constituent of the gastric juice, and can be precipitated from that secretion by absolute alcohol and various metallic salts. It is a powerful antiseptic, and may be kept an indefinite time without any putrescent odor; retaining its acid reaction and digestive properties for a long time. It is not a universal solvent for all alimentary substances; it only acts upon albuminoid or organic material; its solvent powers are greatest at one hundred degrees Fahrenheit, being lost at thirty-two, or one hundred and sixty-five degrees. It is secreted by the

gastric follicles, from the blood, and when the stomach is empty these follicles, or tubular glands, are at rest, and also empty. When food is received into the stomach, the gastric juice is secreted in exact proportion to the requirements for solution of the article, except when an excess necessary for the wants of the system has been taken, or where a morbid condition of the follicles exists.

The flow of gastric fluid is excited by soluble stimulants, such as pepper, salt, mustard, etc. The normal amount of gastric fluid generated by the stomach of a healthy man is about fourteen pounds daily. As soon as the food is dissolved, this fluid is immediately re-absorbed into the circulation, carrying the chemical elements of the aliment which it holds in solution through the general system for its repair; the secretion and re-absorption taking place simultaneously. Pepsin was first introduced as a therapeutic agent, as long ago as the days of Pliny. It was restored to use within the last few years by a celebrated French chemist Boudalt, who made a very agreeable and pleasant preparation that he calls "*poudre nutrimentive.*" It is simply pepsin from the sheep or calves' stomach, dried on starch, and pulverized with or without lactic acid, as the case may demand. I have used the article with excellent success in phthisis pulmonalis, in cases where the stomach would not tolerate "cod liver oil," or any oleaginous substances. Pepsin of itself is not a solvent for sugar or fat, but the use of the artificially-prepared article with the food, in aid of the enfeebled stomach, thereby supplies nourishment for the general system, increasing the power of solubility of the pancreatic juice, and the digestion of fat. I have used it in hysterical vomiting, where the patient would invariably lose her last meal, if excited by any cause, within an hour after eating. I gave five grains of the article prepared in starch, after each meal, for about three months, with the happiest results. I have also used it in several cases of chronic diarrhœa, where food passed through the system undigested, in cases, too, that had been reduced to mere skeletons and pronounced hopeless, but from the very day of the commencement of its use the diarrhœa ceased, and the patients rapidly convalesced by its aid alone. In the diarrhœa of infancy the irritation incident to dentition, in marasmus, where the system is surely but gradually wasting away for the want of nutrition, it is one of the best remedies with which I am acquainted. I find it one of the best remedies also in anæmia; it invariably increases that indifferent appetite, aids the assimilation of food,

which supplies the deficient nourishment to the system, and restores to the vigor of life again. It may be used with or without the aid of tonics or other remedies.

In Chlorosis, too, it is one of the most valuable agents at our command. Not that it has the power of regenerating the lost function, or exerts any direct influence on the generative organs, but nature's whole laboratory is supplied through its aid in digestion, and her deficient energies thereby restored. I have used it in a large number of cases of vomiting in pregnancy, with admirable success. Also in debility and anæmia following pregnacy. It is one of our best auxiliaries in puerperal mania, in fact it is applicable in the various morbid conditions, depending upon a deficient nutrition. The article is best prepared by removing the stomach of the animal shortly after a full meal, we then find it secreting abundantly, and the follicles full. If prepared from the calf, the stomach should be removed about an hour after eating, giving time for the milk to coagulate; then empty its contents, and carefully remove all particles of food; macerate in water at about 100° F. a few hours; wash thoroughly; repeat maceration and washing; evaporate the liquor thus obtained to dryness, in a water or sand bath, at about 100° F., adding one pound of starch, and any aromatic you may choose. The dose for an adult is from five to twenty grains. It may be prepared by cutting the stomach in small pieces, and macerating for ten days in sherry wine, repeating the maceration, obtaining one quart of the pepsin wine. Of this preparation one-half drachm to a drachm is a dose.

COMPOUND SALTS OF BROMINE AND SALIX NIGRA.

By ORIN DAVIS, M. D.

We have had our attention directed of late by James R. Nichols, M. D., of Boston, by the Eclectic medical journals of New York, Cincinnati and Philadelphia, and finally by Wood & Bache, in the United States Dispensatory, to the medicinal properties of bromide of potassium and bromide of ammonium. Considerable has been written, detailing the experience of physicians in its experimental use, which tends to show how generally they are applicable and useful in the treatment of nervous diseases. Before making known our own experience, I may here remark that there is a general unity of expression concerning their properties and effects, especially those of a hypnotic character. Very few extol the *alterative* properties of bromide of potassium, yet it has been especially recommended in the treatment of cancerous tumors. We will very briefly consider only a few of the many notices of its effects. Its favorable influence has been recorded in enlargement of the spleen and in goitre, and all agree that it is a fine sedative to the nervous system, and a prompt anaphrodisiac. Dr. Gibb has called attention to the therapeutic virtues of bromide of ammonium, as peculiarly applicable in functional nervous diseases, and who recorded his experience of it in 1863, in the "London Lancet." Under the head of "gleanings," in the "Boston Journal of Chemistry," the action of the bromide of potassium, in a half dozen lines, is thus referred to:

"The conclusions of M.M. Eulenburg and Gottoman, as to the physiological action of bromide of potassa, *i. e.*, that it paralyzes the head and central nervous system, are disputed in the French Academy des Sciences, M. Laborde sustaining the idea that its first action is upon the spinal marrow, and that this action results in the annihilation of reflex manifestations."

In an extract from the "Pacific Medical Journal," the bromide of potassium is spoken of as a calmative and not a narcotic, and recommended in nervous excitement, in epilepsy, acute mania and delirium tremens.

One physician speaks favorably of the effects of bromide of potassium as a hypnotic, not by giving it in a few large doses, but by

giving it in small doses, say five to ten grains; and that five grains are better than ten, frequently repeated. He had used it with favorable results in neuralgia, nervous headache, nervous excitability, sleeplessness of old people, etc. He never succeeded with it as a narcotic, however.

In the December number of the "Boston Journal of Chemistry," the editor remarks, that when five, ten, or even twenty grains have no perceptible hypnotic effect, by increasing the dose of the bromide of potassium to forty or sixty grains, the desired effects are produced.

R. H. Sabin, M. D., of West Troy, regards the bromide of ammonium with greater favor, for the reason that it is a stimulant; while that of potassium is a sedative. Both, he thinks, will produce sleep; but in most cases of nervous wakefulness, there is great debility attending, requiring stimulants and tonics instead of sedatives. Potassium induces sleep, followed by prostration and languor, while the same, induced by ammonia, strengthens and refreshes. He illustrates these views by several cases in practice.

From my own experience in the use of the bromides, I regard them as very important additions to our *Materia Medica*, and think that they are destined to occupy a larger space in therapeutic inquiries. As a hypnotic, the potassium should be employed in full doses, say forty grains, and repeat in an hour when the case requires it. In a few instances only, have I found that five to ten grain doses coincides with sleeplessness, acting as a stimulant, like opium, in producing wakefulness. These results were very obvious and distinct in two marked instances. In large doses I have procured sleep, in one instance of nervous wakefulness, where the previous night three half-grain doses of morphine served only to tranquillize the patient, but did not induce sleep. The next night my compound of bromides procured not only rest, but natural, refreshing sleep.

In the employment of the bromides, my experience is corroborative of Doctor Sabin, and I regard the potassium as a sedative, and the ammonium as stimulant.

When employed in combination I prefer their remedial effects, and even then their properties may be very advantageously modified by other medicines. I have found that when they are united with mild tonics, the sedative effects can be obtained without causing any feeling of oppression or languor. Latterly I have used largely of the bromides united with Salix nigra, and prescribed it so often confidently, and almost specifically, for certain diseases of body and mind,

that I thought no harm would result to my confreres by my suggesting the formula. One of my compounds is the following:

℞	Bromide of Potassium,	℔ i
	Bromide of Ammonium,	℥ viii
	Bi-carbonate of Potassa,	ʒ ii
	Aqua Pura,	Ojv
	Dissolve the salts.	
	Hydro-alcoholic Fluid Extract of the catkins of the Salix Nigra,	Oij
	Salicine,	℥ iij
	Hydro-alcoholic Ext. of Havana Orange Peel,	Oij
	Mix well, and filter.	
	Syrupus Simplex,	Oviij

As a Calmative, the dose is a fluid drachm. As a Hypnotic, the dose is a tablespoonful, repeated in an hour when necessary. Each fluid drachm of the compound contains a fraction more than five grains of the Salts of Bromine.

We are all very well aware that in our usual practice we often meet with cases of nervous derangement, accompanied with morbid sensitiveness, general excitability and loss of sleep. This restless, unquiet state of mind, this wakeful vigilance is really obstinate, and, when sleep is induced, it is short, fitful, uncertain and unrefreshing. Often we find tenderness along the spinal column, indicating spinal irritation, or not unfrequently it is associated with an inactive condition of the secretory vessels of the liver. Continued loss of sleep leads directly to mental derangement. In the treatment of the insane, it is considered a very favorable indication to procure refreshing slumber. In these instances of spinal irritation of hepatic and enteric torpor, any medicine or anodyne possessing constipating properties is contra-indicated. The exhibition of opium or morphine are not justified on this account. They confine the secretions and imprison the excretions. They narcotize and deaden instead of refreshing and enlivening the patient. They are a dernier resort, accepting their ill effects also, when we wish only to induce sleep.

It is in this class of cases that we can now dispense with opium and morphine, and successfully substitute the salts of Bromine. They will tranquillize, and sleep comes to the dreamy senses of the patient. It is quiet, refreshing sleep; and the toning and restorative effects of the medicine are not doubtful. Not only in cases of nervous disorder, but I have used them in many instances of *mental derangement* likewise accompanied with these symptoms, and always with

the best of remedial results. I have no hesitation in recommending them; have never seen any unfavorable results in large doses; and have been uniformly well pleased with their remedial effects.

This compound is an excellent *anaphrodisiac*, and proves exceedingly valuable in those obstinate chronic spermatorrhœal cases, which sometimes go the round of different physicians, with but little improvement. It possesses a remarkable sedative influence over the urino-genital organs, not only restraining the secretory function of the testes, but also in restraining the action of the muscular apparatus. It procures quiet for the genital system at the same time that the tonic properties of the willow sustain the flagging nervous system, which also needs sleep for its restoration. In a brief period the appetite improves, and there is a general amendment in such cases. I usually recommend for an ordinary dose, a tablespoonful, to be taken on going to bed; and, when necessary, which is very seldom, repeat the dose in one hour afterward.

I regard the union of the bromides to be an improvement, and, perhaps, still more markedly so, their combination with the tonic and anaphrodisiac properties of the willow. I have succeeded in procuring sleep with this combination when I had entirely failed without it. It does seem to increase its hypnotic properties, but by what modus operandi I am not qualified to speak. Its success in cases of *mental derangement* must not be overlooked. I have recently treated eight patients more or less deranged in mind, some possessed with suicidal purposes, others afflicted with religious mania, and others, still, melancholic to desperation. In nearly every instance in full doses its hypnotic effects were beneficial, and, in a few instances, perfectly charming. In one or two cases of acute cerebral excitement, I have combined the bromides with the tincture of the Cactus Grandiflora, and thought that I obtained excellent sedative results. By calming and quieting the mind and procuring rest, I could more satisfactorily obtain the results of general treatment, and bring the body to its functional integrity. It gives an interim which is very important to the practitioner, to lay a proper foundation in health by the use of such remedies as the case requires.

The way that I first began to combine tonics with the compound bromides was, by using the tincture of the willow catkins for their anaphrodisiac properties, in cases of spermatorrhœa, and I was not long in discovering that their tonic properties seemed to deeper and continue longer the remedial influence of the bromides, until finally

I have added the salts of the willow also. I have confined my paper to these two classes of cases purposely, viz.: First, those that require sleep, occurring in cases of nervous derangement, nervous excitement and nervous exhaustion, which also tend to produce mental derangement; some actually resulting in insanity. Let the remedy be employed, for these are important cases, and I am certain that each of you will be well pleased with its remedial effects. Under its calming, hypnotic and restraining influence, you gain important time to regulate and medicate and remedy the faulty state of the bodily functions. Second, in cases of genital debility, resulting from excesses and abuse, it is a potent remedy. It seems to meet the immediate requirements of these cases, and, by persevering with the remedy, results in a gradual restoration of functional power.

I have also employed it in a few cases of epilepsy with favorable results, for a considerable interval of time. Even if we cannot obtain permanent remedial results in these almost incurable cases, yet I have seen enough to lead me to give it a farther trial and recommend it to the attention of other practitioners.

I have thus very briefly and hastily called your attention to the remedial qualities of the bromides of potassium and ammonium, and of their union with tonics to increase their favorable operation, and if what I have related will lead you to a more intimate acquaintance and use of them, I may hope, hereafter, to hear favorable reports, the results of your observation in their employment.

ECLECTIC MEDICINE:

Its Field of Operation—Its Catholicity, Progress and Discoveries—Plea for Thorough Medical Education—the Future, etc., etc. Delivered before the Eclectic Medical Society of the State of New York, at its Semi-annual Meeting in June, 1869, by ALEXANDER WILDER, President of the Society.

We have convened in semi-annual session, according to usage, to exchange the mutual greeting, to renew our former associations, and to take note of the progress which has been making in medical knowledge. Such assemblings are always useful. They burnish the chain of friendship and strengthen the bonds of fellowship which should always exist between the members of a common profession. The present occasion, I trust, will be, in no respect, an exception to that rule. It would be hostile to the genius of science, it would be running counter to the liberalizing tendencies of the present century, for our sessions to be spent in displays of jealousy, envy or recrimination. Medicine is a catholic science; and they who are really proficient in it are above the employment of the slang vocabulary to express their sentiments toward their fellows, however great may be the differences of belief. Medicine is liberal in its influence; and they who are physicians in spirit, as well as by virtue of a conferred degree, are free and liberal in their dealings, and have neither need nor disposition to cramp and enslave their fellows by an arbitrary code of ethics, the tendency of which is to create a professional monopoly, and to set aside the Golden Rule.

Standing on this platform, so broad as to afford room for every generous, high-minded person who is devoted to medical science, and comprehensive enough to include every fact, every truth, every idea which is capable of use to ourselves, our profession and our fellowmen, we invite to our side every one with integrity, moral courage and proper self-respect enough to entitle him to a place here. We ask not where such a one was educated; whose diploma confers the rank; what favorite modes of practice and thought may characterize him; but whether he is honorably persisting in worthy purpose, loving truth for truth's own sake, and modestly but reverently and stubbornly prosecuting the course which honest conviction marks out for his steps. This is the only way to exemplify a genuine manhood, to become and be a good physician, to honor the healing profession; and, I add, this is Medical Eclecticism.

I am not fond, however, of denominational distinctions. I only accept the title of "Eclectic" as a necessity created by circumstances. I would gladly even lay aside the appellation of "Doctor" and walk among men, untitled, purely and simply as one of themselves, peer to every one and according no superior rank or authority to any, but acknowledging to each the same parity of right which I demand for myself. I would prefer to be known for the utility and service which indicated me rather than for any degree or factitious rank with which any man or institution can invest me. But many think otherwise, and I see no better way for the present than to conform externally to the rule, and accept such matters substantially as I find them—to consent to be entitled a doctor, and to be distinguished as a member of the New School of Medicine. The thing, too, has its compensations; we have no traditions to enslave our intellect, no Procustean code of ethics to destroy our manhood, no servile or selfish usages to cramp our movements and degrade us to ourselves.

The name of Eclectic is suggestive of catholicity, of free thought, and noble action. In the old philosophy it was applied to those choice spirits who were careful to gather up all that was good, wholesome and true in the old learning, while they were reverently bold to push their own investigations in every direction into every new field of thought. I honor Plotinus, Iamblichus, Proclus, Longinus, Synesius, and especially that divine woman, Hypatia, who taught wisdom at the Museum at Alexandria, and sealed her doctrines, on the pavement of a Christian church, with her blood. The reaction of that crime extended all through the centuries; and now calm-browed, deep-thinking men receive with veneration the same doctrines which old iconoclasm vainly sought to destroy, and superficial reasoning endeavored to smother with contempt. The free thought which church and State alike attempted to crush, erecting inquisitions, pillories, scaffolds, racks, and engines of fearful torture, to make of it an end, now, like the stone of Nebuchadnezzar's dream, has become a mountain, and is filling the earth. Such is the progress of Eclectic Philosophy. It has survived derision as well as persecution, and is now the strongest force at work in the world of thought, operating like the alcahest in dissolving all things, like the famed philosopher's stone in transmuting all baser elements into gold, and like the *elixir vitæ* in imparting a fuller, purer, truer life.

I trust that the Eclectic School of Medicine will prosecute a career equally noble, lofty and beneficial. It has the world for its

field, and all mankind for its neophytes. The vital forces of all living things are constantly engaged in elaborating for it a proper assortment of health-restoring agents. What is required is to push inquiry boldly to find them out. The laws of life are the laws by which the whole universe is governed; the wise man, the sagacious physician, will be always on the vigil to ascertain and apply them. The "mind diseased," the physical structure racked with pain and anguish, alike demand care and attention. The knowledge which is in the books should be mastered with earnest anxiety; and the knowledge which is not in the books should be studied with greater earnestness and inquisitive curiosity. The physician should be able to treat the maladies of the mind as well as to prescribe for the ailments of the body; and to distinguish between the philosophical and the fanciful. To do this, it is necessary to study human nature upon the psychological side; as the bard Taliesin expresses it, to

> "know with certainty
> What are the properties of the soul;
> Of what form are its members;
> What region is its abode;
> By what breath, what inflowing life
> It is sustained."

No knowledge, therefore, should be considered too abstruse or sacred, too commonplace or trivial, to be acquired and cherished. We are not too good or pure to know anything, however low or humble; nor is anything within the scope of our intellect to be regarded as too holy to be explored and investigated. But too much care cannot be had of the spirit and temper with which we proceed. Knowledge has equal value wherever it is found, whether in a monumental stone, in a carving, or in the vaticinations of a seer, or the pages of a Testament. There is little occasion for us to be eager to tear down, and we need not be emulous to build up. It behooves us to be wisely eclectic, gathering carefully the good that may come within the fold of our net, and casting away the residue. The realms of History, Legend and Fable invite our search. The human heart has had too many utterances to warrant the belief that by silencing them all evil may be swept from the world. Whatever men in any age have reverently believed, has thereby a claim to our respect; and for the sake of knowledge we may sit willingly at the feet of teachers in every school.

Regarding psychological study to be as important to the physician as physiological, pathological, or indeed any other, we cannot refrain from reiterating this conviction.

Now, it may do for our adversaries to earn by their old-time persistence in venesection the appropriate nickname of "leech," and by the employment of quicksilver and its compounds, the other epithet of "quack." A nobler, broader field is open to the Eclectic. He is not circumscribed, like his homœopathic brother, by an exclusive theory of *similia similibus curantur;* well enough, perhaps, if it is true, but most unlucky for him who so teaches if future demonstration show it not to be the whole truth. If for the Eclectic there is a limit, it is only that of life—vitality itself, and his restricted finite capacity. We say the limit of vitality itself, because we entertain the popular conviction, for which it may not be easy to account, that only substances and agents which are or have been organized, which have been permeated with life or a vital aura, should be employed as remedies. Perhaps our knowledge is too incomplete to enable us to avoid the whole kingdom of mineral death; and it is expedient to employ the salts and compounds of zinc, iron, sodium, potassium, and the non-metallic bodies. Yet we feel called upon, in this very matter, to adopt the words of Paul before the court of Areopagus: "The times of this ignorance God winked at, but now commandeth all men everywhere to repent." For the present we must do as well as we are able; but nevertheless, there is "a more excellent way."

It seems, therefore, to be the mission and apostleship of the New School of Medicine to go before, and open the way for all to follow. To be sure, in this way, the pioneers are made subject to a world of reproach. Our old school friends, and even a few homœopathists, take down their slang dictionary, and, after conning it awhile, belch out with a torrent of nicknames and invectives, such as "quack," "empiric," "charlatan," "mountebank," "humbug," "impostor," "advertising quack," etc. You have all read in John Bunyan's "Pilgrim's Progress" of Giant Pope, who had become old, impotent, toothless and rheumatic, so that he could not hurt anybody; who used to make it his vocation to sit a little way outside of his cave, near the strait and narrow path, and rail, denounce and execrate the pious pilgrims as they went on their way to the heavenly city. That is the way, the spirit and the logic with which some persons now rail at and denounce Eclectics. They make codes of ethics, sometimes, a sort of Lilliputian cordage for the Gullivers; and then see how the Gardners and the Carnochans boldly and manfully disregard them. And how old Giant Pope does howl; he is so impotent.

But let us be careful how we denounce in return. Let us be mindful of the tender father when he saw his little child feeding bread and milk to a poisonous snake. The parent drew near with a club to despatch the reptile, but hesitated to give the blow, lest missing the snake he should smite the child. If we, in retaliation for the unjust abuse which we receive from the narrow, the vain and the ignorant, seek to return evil for evil and railing for railing, we shall be prone to do injury to those who deserve it not. We can better afford to 'bide our time. In due season we shall reap if we faint not. They who now scoff at us as ignorant, irregular and empirics, will yet remain to pray. "In those days," says the prophet, "ten men, out of all the languages of the nations, shall take hold of the skirt of him that is a Jew, and will say, 'We will go with you, for we have heard that God is with you.'" We shall yet, in a minor sense, witness the stone which the builders rejected, that the same has become the head of the corner; and we can afford to await the *denoument;* "whoso shall fall upon that stone the same shall be broken; but on whomsoever it shall fall it shall grind him to powder."

At the present time the Eclectic practice is classified as "irregular." Its practitioners, however learned, skillful or accomplished, are ostracised. They are eligible nowhere to honorable official appointments. The endeavor has been persistently made to class them with Pariahs, outside of the privileged circle.

Who would suppose that a school of medical practice so vilified was actively at work and completely revolutionizing the entire Materia Medica of Allopathists and Homœopathists? Yet this is the case at this very moment. Our old school neighbors are daily doling out to their patients our preparations of mandrake, cohosh, black root, queen's root, yam, stone root, golden seal, blood root, Indian poke, skull cap, lobelia, and a hundred others. They are forgetting how to bleed—a scientific method, by the way, of killing a patient to save his life. They nowadays seldom make discoveries of their own, they are so busy at appropriating the new remedies of the Eclectics. There is one peculiarity about it; in this country no old school physician gives due credit when he adopts an Eclectic remedy; but in Europe, Eclectics and their remedies receive honorable mention.

I am gratified to be able to inform the Society that in this State we have achieved creditable position. In 1865 the Eclectic State Medical Society obtained its charter, amidst a struggle of parliamen-

tary opposition which again and again threatened utter defeat. All honor to Senators Dutcher and Allaben, to Speaker Hoskins and Assemblymen Henry B. Lord, Mark D. Wilber and Edmund L. Pitts; their good offices assured success; we have since improved our status, till at the session of the Legislature of 1869, more enthusiasm, more curiosity, more interest was displayed to know and hear the Eclectics than was occasioned by the assembling of both the Old School and the Homœopathic State Medical Societies.

It would not be candid for me to pass by without proper acknowledgment the courtesies displayed at the last session by members of the Homœopathic State Society. I was invited to its sessions, and addressed those who were in attendance. At the supper given by a distinguished physician to the Society, I was present and seated at the side of Doctor Watson, the learned and gentlemanly President. Cordiality was apparent on every hand. In private conversation, members were ready at all times to tell me how their practice, and indeed the entire Homœopathic Materia Medica, had been benefited by the remedies adopted from the Eclectics. There was abundant evidence of a catholic spirit abroad among our Homœopathic associates, which should not fail to inspire a generous reciprocity. What if the Eclectics, so ingenious and successful in inventing new remedies, and the Homœopathists in extending their efficiency by provings, should be fellow-laborers in one field? Who would regret the mutual enlightenment from such associations, each viewing the same truth from a different point of observation? The world moves, whatever the Holy Inquisition and the 10th chapter of Joshua may say; and we are all moving forward with it. I am willing, for one, to reciprocate the friendly disposition which was manifested to me at Albany, to go fraternally hand in hand with our liberal and progressive Homœopathic brethren, never harboring a regret if some future illumination should lead us to overset the wall of partition, and become "sheep of one fold and one shepherd."

Our Medical College also should receive consideration. Its prosperity is essential to the prosperity of the Eclectic School of Medicine. Since it was incorporated in 1865 there have been five full courses of instruction given, sufficiently thorough to entitle the institution to the confidence of the profession. The trustees and professors have been compelled to struggle through a sea of pecuniary embarrassment, receiving many kind words from Massachusetts, Canada and elsewhere, but unfortunately much less of that other species of

kindness which is material and sensible. The College has kept up with the school and the age. In the surgical department, the successful treatment of cancer and other maladies, which have been often declared incurable, has been faithfully taught; the chair of Eclectic pharmacy, now vital to the very existence of our School of Medicine, is well filled; and the professors occupying the other chairs will compare very favorably with those in the other medical colleges. Gratifying testimony is given of the proficiency of the graduates and other students. An equivalent has been rendered to every one.

While science is assiduously cultivated, principle has been persistently maintained. Our Eclecticism has not been destitute of wisdom, or disregardful of personal or social right. From the first, we have practicably acknowledged the equal right of every human being to learn and to know that which pertained to the individual welfare. The degree of this College has been conferred upon ten women as well as upon persons of the other sex. This is not liberality, it is not courtesy even, but simple justice. We are not anxious to blazon the matter abroad; but let those who speak of us be ready to proclaim that from the earliest period in its history, our Eclectic College and the Eclectic School of Medicine have made no more distinction between one person and another, than did God himself when he dispensed the bounties of the universe equally to his creatures. Where distinctions exist, and an antipathy is indulged to the instruction of women in medical and surgical knowledge, there the spirit of Eclecticism is not supreme. Those who share our common humanity, our households and our social life are welcome to participate with us in the acquiring of useful knowledge, and in bearing the labors and responsibilities incident to our mundane life. Whatever vocation any person is fit to pursue, is a right which no true Eclectic, no true man will ever venture to gainsay. We are willing to rest the question there, and abide the decision of a candid public. It is our purpose to advance; not emulous to make innovations but eagerly desirous to ascertain and obey the truth.

The complaint that the labor of women is ill-remunerated is answered by the assertion that it is unskilled and therefore must be cheap. If female servants were educated they would secure higher wages. This thing is true in every vocation. When we open our higher schools to women, we do our best to obviate the complaint.

We appeal to this society to take active measures in behalf of the college. Its success and prosperity are essential to the future well

being of Eclectic Medicine in the State of New York. We cannot cope successfully with the other Schools of Medicine, except by occupying the field with well-educated and skillful physicians. We shall never invade the ground now occupied by our rivals, except we are their superiors. Untaught, narrow-minded practitioners, and a literature little above such men, will precipitate Eclectic Medicine into contempt. Their influence is to make us deserve the opprobrious epithets which adversaries love to employ. By maintaining a good institution of our own, and insisting on thorough instruction for our students, by furnishing large classes, we shall be able to assert and hold our superiority. The door is open, the way is plain; if we are wise we will walk in it.

This appeal would be incomplete if I did not mention the *Eclectic Medical Review*, now about to begin its fifth volume. Under its accomplished editors, Doctors Newton and Morrow, it has attained excellence as a literary production, a repository of scientific material, and an exponent of Eclectic Medicine, nowhere surpassed in this country; and the best physicians of Europe cordially acknowledged its merits. This volume is to have also the editorial services of Doctor J. M. F. Browne, our worthy Professor of Physiology, whose scientific and literary attainments are an honor to our School of Medicine; and, with him and Dr. Morrow, one of the most promising physicians in this State, there is every assurance that the *Review* will be, in point of excellence, all that its friends can hope or require. Let it then have a generous pecuniary support and a circulation worthy of its reputation.

These are the New Times. We are, as a people—I had almost said as a race—letting go of the traditions of the previous centuries. Our nation carried on four years of civil war—war more vast in its dimensions than any that had ever been witnessed in any country, and has emerged from it with new views of political action, of the functions of government, and, what is better, of the personal rights of men. It was no mere war of conquest, but a Revolution so momentous, that, to use the figurative language of the apostle, it shook, "not the earth only, but also heaven." And, to pursue his logic, the shaking signified the removing of the things that were shaken, that those which were not shaken might remain. Our New England and New York, Pennsylvania and the Great Northwest have remained, with their institutions, their free thought, free speech and free education; and there they will remain till the Aryan race

and our branch of it shall go forth no more "conquering and to conquer."

Slavery, social degradation, universal ignorance and lawlessness, by this Revolution, have been doomed; and all that we are waiting for is for the dead past to bury its dead.

England, where Revolution is becoming "familiar as a household word," has found it necessary to extend her suffrage. Her population are fast learning that there is no right divine in a king, no special sanctity in a nobleman. A disestablished church will soon be the next trophy of the heavenward progress of her people. We let the poet speak the rest:

> "But when thy suffering millions feel
> A foe in thee alone,
> Nor throne, nor lords, nor martial power
> Can stand the onset of that hour."

The Scandinavian North, our parent land, has proceeded, step by step, to disincumber itself of the feudal aristocracy; and civil and religious freedom are enjoyed from the Baltic to the Pole.

Germany is ceasing to be Austrian, and accepting instead the dynasty of the Bo-Russian. It is a long step in advance, to be measured by the superiority of the genius of Bismarck to that of Metternich. But Austria is rivaling all Europe in liberalism.

France, oscillating between republicanism and despotism, has yet the problem to determine whether the Gallic races are capable of sustaining free institutions. But freedom is the dream of her thinking men, and may yet become a day vision.

Italy, consolidating around the kingdom of Sardinia, like Germany around Prussia, has made unexampled strides toward liberty, religious freedom and universal popular instruction.

Spain, once the pioneer of all that was bold, aggressive and civilizing, but afterward the embodiment of the vice, the bigotry, the degradation and imbecility to which European middle-age civilization naturally tended, has awoke once more to a consciousness of the movements going on among the nations. She has done what France did twenty years before—sent away her Bourbons; and now her Castlebar, trumpet-tongued, calls upon her to complete her regeneration by disenthralling herself from the domination of her priests. She may hesitate—she probably will; but the words have been spoken, and their echo will reverberate from province to province, and from mountain to mountain, till there can be no rest, no pacification, except by the emancipation of the people.

In the nineteenth century a nation is born in a day.

With such general progress we cannot stand still. Our profession cannot long hold back from receiving the same impetus. Our Washingtons and our Cavours are to perish no more beneath the lancet of the physician. Our Harrisons and our Taylors are to enjoy immunity from premature death from barbarous medical treatment. A Code of Medical Ethics, born of the Dark Ages, conceived in sin and shapen in iniquity, will not be permitted to fetter the limbs of intelligent, earnest men. As the misquoted tenth chapter of Joshua did not silence Galileo, so now, a rule as secret, cruel and wicked as ever was the Spanish Inquisition, will not be allowed to hold back medical progress; and a generous public will scorn the endeavor to have an *auto da fe* for the immolation of Carnochans, Gardners and other giants who have burst the chrysalid investments of Old Physic. The ablest medical men of Europe are even now responding to the requirements of the times; and we may fairly expect that here in the United States, where the prophets were stoned and persecuted, the posterity of those who did those deeds will soon hasten to erect for them monuments and sepulchres.

The Promised Land of professional supremacy is ours by birthright. Formidable men may now hold it, but they are not invincible. They are adapting their strategy to the exigency. When the great Tippoo Sahib fell before the superior weapons of the English, he left this legacy of advice—"Learn the military knowledge of the enemy, and then conquer him with his own arts and weapons." Our adversaries seem to have adopted that rule. We now daily witness men who have no gentler word or epithet for us than "quack" or "empiric," procuring and using the hundreds of new agents which our pharmaceutists have discovered and introduced; and, after these men have learned the efficacy and relative harmlessness of the new medicines, they vauntingly tell us that they are as much Eclectic as we. It may be. We have read in the gospel of John about many chief rulers who believed on Jesus, "but because of the Pharisees they did not confess him, lest they should be put out of the synagogue; for they loved the praises of men more than the praise of God." That kind of men is not yet extinct; but they are eloquent witnesses, though not meaning it, to the superior excellence of Eclectic Medicine. "Forbid them not."

With those who differ from us we have little controversy. What useful knowledge they possess is for our benefit as much as for their

own; and we cannot exclude them from knowing what we have learned, and acting accordingly. We are not engaged in a war of mere propagandism. Our platform is that of broad humanity, including everything true and good. Our principles are as catholic as those of the mighty angel flying through the midst of heaven having the everlasting gospel to preach to all that dwell upon the earth. We may not be able, like Jesus, to rebuke demons with a word, like Apollonius to heal disease by a touch, but we are doing a godlike work in banishing the lancet and the poisonous mineral from medical practice, and substituting in their place a system of innocuous medication. We are enlarging our numbers and the field of our labor. A few years ago we were feeble, without influence except among the poor and lowly; but now we hold honorable rank and place in the medical profession. Our history is analogous to that of the patriarch who said: "With my staff alone I passed over this Jordan, and now I am become two bands." We hold the arbitration of our own destiny as a School of Medicine. The Future is ours. We have, in short, but to make good our position before the world. We want more general information, more erudition, among our practitioners. Petty jealousies and domineering purposes should be laid aside, and honorable emulation with generous intention should pervade our ranks. We must deserve, if we would obtain, confidence. We cannot get along with narrow-minded half-educated physicians. We must be wisely liberal with our means and efforts. We must cultivate in ourselves that ken, that power of perceiving, which is akin to divine inspiration. We must cleanse our motives from the taint of selfishness. "A good intellect is the chorus of divinity." Let our faith be deep and loyal in what is good and true; our eagerness for knowledge, earnest and insatiable; and our purpose, full of resolve and persistency. Then will we be able to assert the superiority of our Eclecticism; then will we establish our right to the front rank of the healing profession; then will we realize the full ideal of the physician—priest of Nature and her interpreter to mankind.

REPORT ON SURGERY.

Made at the Annual Meeting, January, 1869.

Mr. President:

Your Committee would report, that, in this department of the art of healing, the laborers are zealously striving to perfect all the measures now known, and to find out new measures by which to obtain a successful result in those fearful as well as more simple cases that come more immediately under the care of the surgeon. We regret that State and city governments do not show more fair play by giving to other schools besides the Allopathic, some control in the various hospitals. We could then prove what we assert concerning the great superiority of treatment of surgical diseases, by the Eclectic practice, over that of the same diseases by the practice now in vogue there. We think that an earnest effort should be made by all the physicians in the State, who are not of the Old School, to wrest from these self-ordained regulators of the medical profession some of the power over, and control of, some of the pauper institutions of the State and city, which should be used for the benefit of all, and not of only a part. We are no longer a *few*, to be kicked about and spit upon; we have become a power in the land, and, having rights inalienable, we dare maintain them. If the Homœopathic physicians would act in harmony with us to accomplish this grand result, setting aside any prejudices on account of difference in practice between us, we think that ere long we would get what we demand.

Eclectic surgeons have, in the past, and are now, making great improvements in the treatment of surgical diseases, by the introduction into use of those potent new remedies of vegetable origin, as well as mineral, that have made the practice of medicine of physicians of our School so eminently successful. Their vocation is to heal the wounded and relieve the afflicted, and if they discover a remedy that will accomplish this better than another—no matter if it *come* from an "old woman," or even from a fool, they will not reject it simply because of its source, and let their patient die *secundem artem*, but they will eagerly seize upon it, and try its virtues, giving credit where credit is due. Many of our most valuable agents are those whose virtues had been tested by many a mother at the sick bed of some of

her household, long before they were used by practicing physicians; and we should be ever ready to receive the results of such experience and give them the trial they justly merit.

Among the new remedies that have been introduced into surgical practice recently (though not within the past year), and which more and more sustain their reputation for usefulness, may be mentioned the calendula officinalis, gelseminum sempervirens, veratrum viride and the carbolic acid; the calendula in the treatment of inflammations, incised and contused wounds, as a local application; the gelseminum and veratrum for their excellent febrifuge effect, and especially the gelseminum for its relaxing and diuretic effect; and the carbolic acid as an antiseptic, especially in those surgical diseases usually attended with free purulent discharges. In large abscesses, such as cold or chronic of long continuance, which it is necessary to open, it is an admirable agent, both as an injection in solution into the cavity and an application over the opening. It arrests the decomposition of pus as well as the propagation of cryptogamous spores, which the air may have introduced into the cavity, and thus obviates all that train of fearful results that formerly often followed such operations. Mr. Lister, of Glasgow, certainly deserves much credit for pursuing original investigations with this agent as far as he has, and it is now being used everywhere. We have used it in treatment of chronic abscesses with excellent effect; also to incised and contused wounds; in chancre, the liquid formed by the melted crystals at once destroys the virus and makes a healthy sore. In gonorrhea a weak solution is often useful for an injection, but will frequently be found to be too irritating.

The perchloride of iron is also having a more widely extended use. Instead of being used simply as an hæmastatic, it is now being urged as a remedy for "aneurismal tumors of arteries." M. Gasselin, lately appointed as professor in the Surgical Clinic of La Charité and a distinguished French surgeon and writer, has used it successfully, and recommends it above any treatment by compression or by ligature. He injects the perchloride into the very course of the tumor, and repeats it often until the result is accomplished. It is an admirable agent in the treatment of varicose veins of the limbs, though the precaution should be taken to use compression for a time above the point of injecting, lest some of the clots formed in the liquid itself be transported into the channels nearer the heart and mischief result, as has been the case in a few instances. We have

found good success from its use in varicocele by injecting a few drops of the liquid among the veins of the spermatic cord in the scrotum. While on the subject of remedies and treatment of surgical diseases, we desire to call the attention of the profession to a request made by Dr. Joseph Hermann, Chief Physician to the Royal Institute for the Poor in Vienna. In No. 52, Wiener *Medical Mochenschrift*, he desires physicians generally, and those interested in Syphilis in particular, to describe those forms of Syphilis which, according to their experience and conviction, cannot be cured without the administration of mercury. In No. 57, July 17, 1867, of the same journal, he makes an explanation of the request. He declares that it is made purely for the interest of medical science. He believes that the mercurial doctrine must be put to the test of comparison with other methods, and desires to furnish proof:

1st. That all forms of Syphilis can be cured without mercury.

2d. That in the treatment of Syphilis, without mercury, and by observation of the cause of the disease, the latter can be restricted to certain definite limits, and that the form, which he has called Hydrargyrose, and which the adversaries of his method of treatment have designated as constitutional, or, more correctly, Tertiary Syphilis, does not make its appearance.

3d. That the forms of the disease, called by him Hydrargyrose, will be proved to be such by physical experiments.

As a necessary preliminary to the whole question, he deems it requisite to have a full knowledge of those forms of Syphilis which cannot be cured without mercury, and since, among twelve thousand cases of Syphilis occuring in the institution under his charge, no such forms were found. He makes application to all experts to make known their cases." (Compendium of Medical Sciences.)

We would like to see this matter thoroughly discussed. We have always treated Syphilis *without mercury with good success*, and it has been our opinion that the tertiary forms of that disease are so difficult to cure because they are made so by the mercurial treatment of the primary stage—often the calomel, when applied upon a chancre, being absorbed with the virus which it drove in, producing a mercurio-syphilitic disease, or Hydrargyrose, as Dr. Hermann very justly calls it. Thus we see that the darkness is breaking all over the world.

In surgical operations considerable attention is devoted in Europe and in this country to perfect the most available means for arresting bleeding in the large arteries after operations. It is

desirable to substitute for the ordinary ligature something, which, while it shall be equally effectual and certain as the ligature, it will not be necessary to leave in the wound for fifteen, twenty or thirty days, acting as a foreign substance, and becoming the cause of suppuration, abscess, etc., and thus preventing, as, after amputation, union by first intention, or, at least, a speedy union of the tissues, which is so very desirable. Acupressure was introduced by Prof. Sir Robert Simpson, of Edinburgh, and is now very thoroughly tried and highly recommended by many able surgeons. Prof. Purie, of the University of Aberdeen, has used it in fifty-one cases, acupressing one hundred and eighty-five vessels of a highly diversified character, and many of the most important in the practice of surgery." More universal testimony, in all cases, will be necessary, however, before the ligature will be completely set aside. This, with torsion of smaller arteries, as practiced and recommended by Prof. Syme, for not only those, but the larger ones even, will, we think, cause the ligature to be gradually set aside for a more useful agent.

Prof. N. R. Smith, of Maryland, has invented a metallic snare, consisting of a small tube with a fine wire passing through in a loop which projects beyond the end. The artery is received within the loop and drawn against the end of the tube. In from eight to forty-eight hours, by which time a plug is formed in the artery, the wire is drawn into the tube, and thus through the artery, and then the tube may be withdrawn. We have noticed many modifications of various surgical operations, which time and the occasion will not permit us to enumerate.

By the use of the endoscope, it has been discovered that in gleet, in some cases—especially those giving origin to stricture,—the mucous membrane becomes covered, in patches, with granulations, which, as in opthalmia, are the cause of the tenderness and discharge.

Our report has become quite long, but even a more extended one would hardly do justice to the subject. Eclectic surgeons are springing up everywhere, and bursting the bonds with which many of the teachings of the Fathers have enchained them, and when they begin in earnest to seek for the truth and for more light, they are very likely to find them.

Eclectic surgeons of America are able and ready, pushing into notice their methods of treatment, and with delicateness of manipulation performing the finer, as well as with steadiness of nerve and firmness of hand, all the graver surgical operations. We commend

to your attention the suggestions in this paper concerning the pauper institutions, and hope that a united effort will be made to secure to surgeons and physicians of our School the opportunity, which can be had nowhere so well as there, to introduce the many improvements of which the art of surgery is susceptible.

We hope that much good may come of this annual gathering, and that your deliberations may be conducted with that earnestness of purpose and liberality of spirit, which have always characterized your previous proceedings, and which must certainly result in good to the cause so near to all our hearts.

EDWIN FREEMAN, M. D.
HENRY C. COOPER, M. D.

HYGIENIC SUGGESTIONS.

An Essay read before the Annual Meeting of the Eclectic Medical Society of the State of New York, at Albany, January 27th, 1869. By J. G. FROSS, M. D., of Syracuse.

Hygiene "is that department of medical science that treats of the preservation of health."

A knowledge of the laws that govern this complex organization, the harp of a thousand strings, called man, is indispensably necessary so that we may have health and strength to be active for our own enjoyment and for the benefit of the world.

This knowledge enables the physician to act successfully in removing the cause of diseases that have been induced by an infraction of physical law, and in directing those who have sickened from other causes to observe a mode of living that will conduce to sure recovery. Wholesome air, light, clothing, food and exercise are necessary for the preservation of health, and they are doubly necessary that energy may be restored to an enfeebled constitution. They are more important than drugs, and the physician who relies too much upon the latter without a due regard for the other will miserably fail.

The limit of this paper will not admit of a full discussion of hygiene or its importance. I shall, therefore, confine myself to a few of the most important points. The state of our health, and even our existence depends upon what we throw off, and what we take on. Every act of our lives, either in thought or motion, consumes some particles of our physical structure. The combustion by which our bodies are warmed burns up their elements.

From these sources there is dead matter constantly gathering, which, if it were retained in the system, would soon infect and poison every part; clog the wheels of life and stop their motion.

This waste material must be thrown off. Two of the principal agents for discharging this dead matter are the skin and lungs—the skin with its thousands of streets and alleys, the pores and ducts through which every day so much of it is "carted," that we should be astonished if we could see it "dumped" into a heap by itself; the lungs, also, with their myriad cells, bringing the air into contact in every part with the crimson tide of life; which comes to them freighted with the effete material which it has gathered from the

avenues of decay; and by a most beautiful chemical process combines it with one of the gases of the atmosphere, to be cast out; meanwhile the blood takes in its stead the invigorating oxygen which prepares it for another round of service. The bowels and the kidneys, too, have their share of the work to perform, and if they all act in harmony the task will be well done.

Vitally important as are these processes, it is just as essential that we add to the physical system enough every day to repair this waste; else we should soon lose so much of our structure that life could not be maintained.

There is quite a difference between *taking in* and *taking on.* We may take in very many articles for food and drink which contain but few, if any, of the elements which can nourish our bodies, or add to them, the substances of which they are composed. This is taking in, without being able to put much on. This trash occupies the space in those organs from which we derive the materials which sustain our life and taxes their energies.

To really take that nourishment which contains the elements of which our bodies are composed, and to assimilate it so that it is woven into our structure, and becomes a part of our being; this is really "taking on."

There are twelve simple elements (with very slight traces of two or three other substances) which make up the human body. They are oxygen, hydrogen, carbon, nitrogen, sulphur, lime, iron, potassa, soda, magnesia, phosphorus and chlorine.

Nothing can be really food that does not contain some of these elements. And we can sustain perfect health but a short time without them all in some form. They are all combined in eggs and milk. We sometimes feed the sick on beef tea, thinking it a nourishing diet, while the fact is, it furnishes so few of these elements that a healthy person would soon starve on it. The top of nice, sweet milk, that has stood but a short time, is the best diet for the young and the sick, and I would not say that it is not first rate to prevent sickness, too.

Thousands of children are starved to death every year, not because they have not enough to eat, for they are literally crammed with trash upon which no human being can live, but because what they ingest does not properly nourish them. The world is full of invalids to-day who have sacrificed health and shortened life upon the altars of bad food and worse drink.

Again, the air which surrounds us is composed of oxygen and nitrogen, two elements which enter very largely into the composition of the human body. Our lungs daily take in from three to four thousand gallons of it, and absorb from one to two pounds. The skin, also, is constantly employed in the same work.

"The first nourishment we take is air in bath and breath, and the last is air." A constant supply of pure air is more necessary than good food. We would die in five minutes without it. Bad air is worse than bad food, for it comes immediately into contact with the blood. A poison introduced at once into the blood is much more immediately destructive to health and life than it could be if it were taken into the stomach. In the first instance, it does its deadly work at once, while in the latter it has to pass a number of safe-guards which may throw it from the system, or at least mitigate its effect. Our most deadly diseases come to us through bad air.

Pestilence takes its deadly march through streets and cities, carrying its devastations into the centres of population, because the air is contaminated with filth and the effluvia of putrefaction. Decaying substances emit a poison which we call miasma, which is composed of small particles of putrefaction, that are distilled into the air and float in its currents. This is an enemy to health and life.

There is a common law in nature that everything begets its kind. This is the reason why decay, being the result of death, preys with consuming greed upon all dead matter, producing chemical and other morbid changes.

This is a poison capable of multiplying itself, if given its peculiar aliment to feed upon; and it sends out its pestilential breath to infect the living and obtain new victims to its deadly power.

The worn-out matter thrown off from living bodies also infects the air, so as to be injurious to health, where many are crowded together without proper ventilation. The diseases so engendered are often very severe.

When we realize that miasma will also multiply itself in the living human body, we can easily perceive that the air we breathe should be free from its contamination.

The cholera, which marched through the old world scattering death in its pathway, and even sent its noxious breath over three thousand miles of ocean, had its origin in heaps of decaying garbage and putrefying filth.

Our autumnal fevers in the country are generally, in like manner, caused by decaying vegetation, and timber in our swamps, streams

and ponds; and to these may be added, in our cities, the accumulations which naturally gather when the people become negligent.

Pure air, then, is only to be secured by a rigid cleaning out, burying and burning up everything that can decay. This, with thorough ventilation, is sure to accomplish much in promoting the health of our population. If the product of decay is so injurious to health when breathed from the air, it must do equal mischief if introduced into the system from any other source. We have a direct illustration of this in the terrible result following the wound of a dissecting knife, and the sickness produced by the use of diseased beef, as attested by health officers and others.

Spirituous liquor, too, is the product of decay. All know that grain must ferment, or rot, before it will yield this destructive thing. During this putrefying process it emits a gas, which, if breathed in a concentrated form, will destroy life immediately.

The fact was demonstrated in Syracuse only a short time ago. A laborer in a brewery (Mr. Handcock) descended into a tank, after drawing off the fermenting contents, and fell dead. A fellow workman went in to bring him out, and he too died at once. The effect upon them was no more certain than is that of drinking the life-destroying beverage. The only difference is in the length of time which it requires for its work.

The terrible death-list of seventy-five thousand per year, and as many more with health destroyed, in our own country alone, is sufficient proof of what I say. All decaying substances, then, and everything which is the result of decay, should be utterly banished from our tables as well as from the air we breathe, if we would maintain healthy constitutions and vigorous physical structures.

Hardly next in importance to pure air is sunlight. This is as necessary to sound animal as it is to vegetable life. All existence, independent of the grand old orb of day, is meagre and unhealthy. We have the vigorous growth and beauty of spring only when the sun comes back to liberate the earth from the embrace of frost, the king of darkness. The sun tinges the foliage and the fields with their verdure, and the rose with its beautiful blush. The birds hail his coming with joyous notes of song, and prepare to rear their young in his warmth. The herds and the flocks give unmistakable signs of delight at his approach, and all nature seems filled with gladness. God made the sun to rule the day, and attested to its importance by giving the moon to reflect his rays at night. We do wrong, then,

when we shut the sunlight from our dwellings, for it not only makes them dark and gloomy, but it injures our health and that of our children.

Let the sunlight in, and it will chase away the damp and purify the air, for miasma soon hides away when it approaches.

Draw aside the window curtains, then, fear not his touch, fair lady; let him smile upon you, and, should he kiss your cheek, it will add beauty to your bloom and vigor to your frame. Let him embrace the children, for he will give to them health, and lengthen out their lives.

Invite him in, then; let him stay with you and help you occupy your home, for he will chase away a thousand ills, and you would soon begin to love him so that you would never let him go.

Our clothing should be selected with reference to the functions of the skin, as well as to protect from cold. Woolen goods are porous or open, and will, therefore, conduct the moisture away from the skin to pass into the air, while cotton is compact, and retains it, to be absorbed back into the circulation. This fact furnishes a more weighty argument in favor of wearing woolen the year round than the very important one that it is a non-conductor of electricity. If, in view of the absorbing functions of the skin, cleanliness is necessary to health, then it is very important to remove its exhalations away from it as speedily as possible.

Another important reason for constantly wearing woolen is, that its porous quality allows the air to come in contact with the skin, promoting its vigor, giving the entire system the constant enjoyment of the air-bath, which nature has provided for its benefit; for we may about as well exclude the air from our lungs as from our bodies. Woolen can be made as light as cotton; and taking all the changes of the temperature into account, it is more agreeable as well as healthy.

To keep the stomach healthy we must use proper food, eat slowly, masticate well, refrain from taking too much, and indulge in a short rest of body and mind before and after eating. This is indispensably necessary, that the nervous energy may not be diverted from the stomach, which it must have to assist it to perform its work. The heart and lungs are among the most important organs we possess. The one sends the blood through its channels, conveying supplies to every particle of living structure; while the other fits it for its work. These organs are liable to become diseased if undeveloped or abused. As a large percentage of the death-list is caused by lung and heart

diseases, it is absolutely necessary to give those organs ample room, and also to engage in such calisthenic exercises as will develop them to the fullest extent of their capacity.

The brain and nervous system should also receive our most assiduous care. Here is the great battery that gives stamina to the human organism; and the nerves are its means of communication, through which it sends its invigorating force to every part of the system. No organ can sustain a healthy action unless its possessor has a healthy brain. This organ can be greatly strengthened by a proper course of training; or it may be rendered unfit for the performance of its task by over work or by indulging in excesses.

The muscular system should not be overlooked, for our power to do depends upon its strength. While every organ is capable of being strengthened by activity, the muscles can be improved more rapidly than any other; but the same law of development applies to all. Each is strengthened by the proper performance of its functions and weakened by over-work. The full development of all our powers of body and mind can only be attained by alternate activity and rest.

Rest is fully as important as labor, and injury will result from carrying either to excess. Over-work will exhaust the vital force and expose to disease. Too much rest allows the organs to dwindle into feebleness. A good rule is, to do all we can without fatigue. If we do this, a little more can be done each day, and our capacity for doing may be increased to an enormous extent.

As it is, a large number of our youth are over-taxed mentally, and a large number physically, while a majority of the remainder rust and rot out; and there are but few who have well-cultivated minds in sound bodies, as capital with which to commence life.

In view of these facts, the laws of health should be taught and observed in all our homes and schools.

Let the people once realize that they are committing suicide, and slowly murdering their children by their present course of living; let them really know that one hundred thousand go to early graves every year in our own beloved land, because they violate these laws, and there will be a rallying of the popular will that shall demand a radical reform in the life and education of the masses.

THE BILE.

A paper read before the Eclectic Medical Society of New York, on Wednesday, 16th December, 1868. By J. M. F. BROWNE, M. D., LL.D., Professor of Physiology and Pathology in the Eclectic Medical College of New York.

Bile, as obtained from the gall-bladder, is a somewhat viscid fluid which varies in color according to its composition, its degree of concentration, and the species of animal from which it is taken. If much diluted, its color is yellowish; if concentrated, it is dark green or olive. "Human bile is of a dark golden brown color; ox bile of a greenish yellow; pig's bile of a nearly clear yellow, and dog's bile of a deep brown."

Bile has a bitter, nauseous taste, which, as Budd remarks, "leaves behind it a smack of sweetness."

Its odor is peculiar, in some instances resembling the odor of musk, but usually that of melted lard. Healthy human bile, however, when fresh and unmixed with intestinal gases, has scarcely any perceptible smell.

Bile has an unctuous, soapy feel, and, in some of its physical properties, it is analogous to soap; for instance, it combines readily with water in any proportion; mixes freely with oil or fat; removes grease spots and cleanses articles of clothing; and froths up into a lather or foam when agitated in a test-tube, or when air is forced into it through a blow-pipe.

Bile is heavier than water, but its density, like its color, varies according to its composition and degree of concentration. Hog's bile has a specific gravity of 1.030 to 1.036; ox bile, 1.054; human bile, 1.018.

Bile has been generally supposed to have an alkaline reaction, but the experiments of Bouisson and Kemp, and of later observers, tend to show that when perfectly healthy and fresh it is neutral.

As usually obtained for examination, it contains, on an average, 14 per cent of solid constituents; and of these, 90 per cent are organic matter, and 10 per cent mineral substances.

The organic matters are, 1. *The Pigment;* 2. *Cholesterine;* and these, with fat and fat acids, form 27 to 30 per cent of the solid residue.

1. *The Pigment.*—This is a nitrogenized, uncrystallizable substance, and yields to ultimate analysis a small quantity of iron. Nothing

positive is known as to its origin, some histologists regarding it as an elaboration of the liver, others supposing that it pre-exists in the blood. It is of different colors, and to each color is given a different name; *biliverdin* is the green pigment, *biliphæin* the brown, and *bilifulvin* the yellow.

2. *Cholesterine.*—This is a crystallizable, non-nitrogenized, inflammable substance, insoluble in water, but soluble in alcohol or ether. It crystallizes in thin, colorless, transparent rhombic tablets. It is normally dissolved in the bile, but it is found in blood, brain, nerves, fæces, cerumen and crystalline lens. It occurs in encysted tumors, in carcinomatous growths, in cretaceous tubercles, and in dropsical transudations. It is found, also, in notable quantity in the tissue of the spleen. Cholesterine is not formed in the liver, but results from the disassimilation of tissue, and particularly of nerve-tissue and the substance of the brain, from both of which it may be extracted in considerable quantity by the action of alcohol. Cholesterine is the substance of which the concretions, known as gall-stones, are almost entirely composed.

The mineral constituents of bile.—These are, *chloride of sodium*, *phosphate of soda*, *carbonate of soda*, *phosphate of lime*, *phosphate of magnesia*, *carbonate of potassa*, and traces of *iron* and *magnesium*. But the most important ingredients of bile are two saline substances, known respectively as the *glyko-cholate* and *tauro-cholate* of soda. These salts, which were discovered by Strecker in 1848, exist, properly speaking, only in the bile of the ox. But in the bile of all animals there are substances which, though not precisely identical with these, are similar to them, in being soluble in water and absolute alcohol, but insoluble in ether, and in giving the same peculiar reaction with Pettenkoffer's test.

The glyko-cholate of soda is a crystallizable non-sulphurous substance, its crystals being fine, white, silky needles, which radiate from a point and arrange themselves in sheaves or bundles.

The tauro-cholate of soda is a non-crystallizable sulphurous substance. It is a very abundant ingredient of bile, and has the property, when itself in solution in water, of dissolving a certain quantity of fat.

These two substances differ in their reactions with the salts of lead, and by this difference of reaction they may be distinguished from

each other. Both are precipitable by the subacetate of lead; but only one of them (the glyko-cholate), by the acetate.

These salts are probably formed in the liver, as they have not been found in the blood, nor in any other part of the body in healthy animals.

But, in addition to the organic and mineral substances mentioned, bile contains *mucus* derived from the gall-bladder and ducts. To this ingredient it owes its viscidity and its capability of being drawn into threads. The quantity of mucus, like that of water, varies in different specimens. In ox bile, as analyzed by Berzelius, it amounted to 3 parts in 1000. It may be obtained by adding to bile a sufficient quantity of alcohol, which precipitates the mucus in flakes; or it may be precipitated by acetic acid.

Test for bile.—The best test that has yet been proposed for the detection of biliary substances is that of Pettenkofer; it is thus applied:

A little cane sugar, or a few drops of simple syrup, are mixed in a test-tube or porcelain capsule, with the fluid in which the bile is suspected; concentrated sulphuric acid is then gradually added until the mixture assumes a somewhat syrupy consistency, and an opalescent look. If bile be present a red color soon appears at the bottom of the vessel, and diffuses itself through the mixture until the whole exhibits an intense and beautiful purple or violet color.

This, as before stated, is the best bile-test that has yet been proposed; but, though in many cases eminently useful, it is far from being as perfect as could be desired. A better test is still a desideratum.

The bile constantly secreted.—The bile, like the urine, is a constant secretion. In a state of health, its formation suffers neither interruption nor suspension, and it continues, to a certain degree at least, long after the animal has been deprived of food. It is more active, however, during the solution of food in the stomach, and its flow into the intestine is greatest immediately after a hearty meal.

Quantity of bile.—The quantity of bile secreted every twenty-four hours varies widely, no doubt, in different persons, and even in the same person under different circumstances. Activity of respiration, amount of perspiration, quantity and quality of the food, have, doubtless, a modifying influence on the quantity secreted. Although many

attempts had previously been made to estimate the amount, we had no trustworthy information on the subject until 1852, when the experiments of Bidder and Schmidt were published. The observations of these gentlemen were carefully made, and the results they obtained are probably not far from correct. They experimented on cats, dogs, sheep and rabbits. Having opened the abdomen, they ligated the common biliary duct, and thus excluded the bile from the bowels. They then established a permanent opening into the fundus of the gall-bladder, by which the contents of that reservoir were emptied externally. The bile thus discharged, was received in vessels which had been previously weighed, and its quantity was in this way accurately calculated. By careful observations, they found that there is a larger secretion of bile in herbivorous animals than in carnivorous, and that for every pound weight of the entire body, there is secreted in twenty-four hours:

	Fresh Bile.	Dry Residue.
In the cat,	102 grains.	5·712 grains.
In the dog,	140 "	6·916 "
In the sheep,	178 "	9·408 "
In the rabbit,	958 "	17·290 "

And from the fact that the digestive processes and the nutritive actions in man generally resemble those of the carnivora, rather than those of the herbivora, they inferred that the quantity of bile secreted daily by a man in health must be nearly the same as in carnivorous animals. And from these data, and by applying to the human subject the average result obtained by the experiments on the cat and dog, they estimated that an adult man, weighing one hundred and forty pounds, secretes not less than forty ounces every twenty-four hours. The estimate of Todd and Bowman is even higher; according to them it is about fifty-four ounces every twenty-four hours.

Origin of the bile.—The bile has been supposed to be derived from two sources, viz.: the systemic venous blood, and materials absorbed from the digestive apparatus. That it is derived almost exclusively from the former seems clear from the following facts: 1st. In protracted abstinence, when the digestive organs are inactive, the bile continues to be secreted, and often in large quantities. 2d. In the winter sleep of hybernating animals, when digestion is suspended, the action of the liver continues, and the biliary secretion is poured into the intestine. 3d. During fœtal life, in which there can be no true digestion, the liver is active, and its secretion is emptied into

the intestinal canal. This secretion, which is called the *meconium*, is true bile, as its analysis proves. Now in the instances we have mentioned no materials are absorbed from the digestive cavities, and there is, therefore, no source, save the systemic venous blood, from which the bile can be elaborated. But physiologists are not agreed as to where the proximate principles of the bile are formed. Some contend that they are produced in the liver, others that they are merely separated by that organ from the blood. The latter opinion is the one now generally received. The biliary principles, with one or two exceptions, perhaps, pre-exist in the blood, and are derived from the waste of the body. They are the products of the disintegration of the tissues, and the metamorphosis of the "blood-disks in their downward career." They are carried by the blood to the liver, and there by the action of cells are elaborated into bile.

Destination of the bile.—What becomes of it in its passage through the intestine? On this point there is a difference of opinion; some physiologists maintaining that the bile is mainly excrementitious and is discharged from the bowels; others, that it is in great part recrementitious and is absorbed in the intestine. Those who adopt the first view are fortified in their opinion by several considerations.

1st. The digestion of the various elements of food is apparently provided for by the other secretions without the aid of the bile; for instance, oleaginous substances are digested by the pancreatic fluid; albuminoid substances by the gastric fluid, and amylaceous substances by the mixed intestinal fluids. Moreover, it has been ascertained by repeated experiments that bile mixed with the substances just mentioned exerts no special action upon them; and the inference is that it takes no part in their digestion.

2d. The bile, unlike all other secretions, is produced from venous blood, which has become contaminated by the debris of the tissues, and by all manner of effete ingredients.

3d. When the secretion of bile is suppressed, symptoms of poisoning of the nervous system immediately show themselves; the powers of the system are lowered; the patient becomes jaundiced and finally comatose, and death supervenes at the end of 10 or 12 days.

The first of these considerations, it will be preceived, tends to show that bile is unnecessary to the digestive process, and the two last, that it is poisonous to the system; and the three combined would induce the belief that it is merely an excrementitious fluid, intended

to perform no particular function, digestive or other, and destined, like the urine, to be eliminated from the blood and discharged from the body.

This view, though plausible, cannot be correct. If the bile were merely excrementitious and took no part in digestion, then, provided its removal from the body could be otherwise secured, it might be excluded from the intestine without injury to the animal. Experiment proves, however, that it is necessary not only that the bile should be secreted and discharged, but also that it be poured into the intestine and that it accompany the chyme through the alimentary canal. On this point the observations of Bidder and Schmidt are conclusive. They experimented on dogs, ligating the common biliary duct and making an artificial opening for the passage outwards of the bile. The result showed that its exclusion from the intestine proved fatal to the animal. For although, after the experiment, the appetite of the animals continued good, and their digestion did not seem to be materially interfered with, yet there was a marked decline of vivacity and strength. There was constant and rapidly progressive emaciation, and every trace of fat disappeared from the body. There were borborygmic rumblings and an abundant discharge of flatus. The hair fell off; the fæces emitted a putrescent odor, and the breath was insufferably fetid; and, finally, during a period vibrating between twenty-five and forty days, the animals died, apparently without pain, as if by inanition, or a gradual decline of the vital powers.

But the experiments of Bidder and Schmidt show further that, under ordinary circumstances, the amount of bile discharged by the bowels is but a small proportion of the whole amount secreted; and the inference is that it is in large part recrementitious, and that it suffers reabsorption in its passage through the intestine. Taking the sulphur of the bile and experimenting with it, these physiologists found that the quantity of that substance in the fæces was only about $\frac{1}{15}$ of the quantity in the bile as it enters the duodenum.

"These observers," says Dalton, "collected and analyzed all the fæces passed during five days, by a healthy dog, weighing 17.7 pounds. The entire fæcal mass during this period weighed 1508.15 grains:

Containing	water, ...	874·20 grains.
	solid residue,.....	633·95 "

The solid residue was composed as follows:

Neutral fat, soluble in ether, ...	43·710 grains.	
Fat with traces of biliary matter, ...	77·035	
Alcohol extract with biliary matter, sulphur.	58·900 containing	1·085 grs.
Substances not of biliary nature extracted by muriatic acid and hot alcohol, ... sulphur.	148.800 containing	1·302 grs.
		2·387
Fatty acids with oxide of iron, ...	98·425	
Residue consisting of hair, sand, &c.,	207.080	
	633·950	

"Now, as it has already been shown that the dog secretes, during twenty-four hours, 6.916 grains of solid biliary matter for every pound weight of the whole body, the entire quantity of biliary matter secreted in five days by the above animal, weighing 17.7 pounds, must have been 612.5 grains, or nearly as much as the whole weight of the dried fæces. But, furthermore, the natural proportion of sulphur in dog's bile (derived from the uncrystallizable biliary matter) is six per cent of the dry residue. The 612.5 grains of dry bile, secreted during five days, contained, therefore, 36.75 grains of sulphur. But the entire quantity of sulphur, existing in any form in the fæces, was 5.952 grains; and of this only 2.387 grains were derived from substances which could have been the products of biliary matters—the remainder being derived from the hairs which are always contained in abundance in the fæces of the dog. That is, not more than $\frac{1}{15}$ of the sulphur, originally present in the bile, could be detected in the fæces. As sulphur is a simple chemical element, not decomposable by any known means, it must, accordingly, have been reabsorbed from the intestine."

Functions of the Bile.—It was formerly supposed that the bile was quite as essential in the digestive process as the gastric fluid itself; it was thought, indeed, that the latter commenced that process and the former completed it. That the bile has an important relation to digestion admits not of doubt; but what that relation is, and what especial offices it serves, are questions most difficult to answer. Nor are they likely to receive a satisfactory solution until the spiritual eye is opened, and the interior as well as the exterior of man is

thus brought to our view. When we shall be able to see the thoughts as they arise in each other's minds, and the electric currents freighted with health or reeking with disease, that come to and go from our bodies, then, and not till then, shall we fully understand these and other questions that now puzzle the physiologist and call forth so much speculation and discussion.

The bile, as we have seen, is both excrementitious and recrementitious, that is to say, part of it is excreted and part of it reabsorbed. It is, therefore, both active and passive, so to speak—active as regards the influence it exerts on the chyme, and passive as regards the influence exerted on itself by the other intestinal fluids.

We have seen that the exclusion of the bile from the intestine is followed by fetor of breath and putrescence of odor in the fæcal discharges—results that follow the putrefaction of the intestinal contents. Hence we infer that the bile is the great antiseptic of the intestinal canal, and that one of its functions is *to prevent the putrefactive decomposition of the chyme in its passage through that canal.*

It has been proved by experiment that exclusion of the bile from the duodenum is soon followed by loss of fat in the animal, and by thinness and serosity of the chyle in the thoracic duct—results that flow from the imperfect emulsioning of the oleaginous elements of the food. Hence, we infer, that another function of the bile is to *aid the pancreatic fluid in emulsioning fat, and to promote the absorption of fat from the intestine.*

"Eberle observed that in animals which he had made the subject of experiment, and especially in such as had fasted some time before death, the mucus of the intestine was much more abundant as far as bile had reached, than below this point." Hence, another function of the bile seems to be *to stimulate the mucous membrane of the intestine to secrete a proper supply of mucus.*

Another, and one of the most important of its functions, is *to stimulate the coats of the intestine so as to increase the peristaltic motion of the bowels, and thus secure an alvine evacuation every day.* Bile is the natural purgative; poured into the intestine in *normal* quantity it merely prevents constipation; in *abnormal* quantity it causes diarrhœa.

MIDWIFERY.

Report of the Committee on Obstetrics. Submitted by HARMON PEASE, M.D., at the Annual Meeting, January 27, 1869.

Shall the art or practice of assisting woman in child-birth be performed by man or woman? The time has been when this important branch or office was almost exclusively in the hands of women. But the exploration of science has revealed the important fact that the anatomical structure of woman, and more especially her generative organism, are the most delicate mechanisms of the human system, and never should be intrusted to the unskillful hand of ignorance. Whoever acts in the department of midwifery, should first acquaint themselves with the anatomy of the pelvis, and the physiological structure of all the parts concerned in utero-gestation. The advice which the family physician should be able to render to woman is above all estimation. For, as her health is at the time of conception and her conduct during gestation, so will be her offspring. Why is it that so many die in infancy? In my opinion there are various causes to produce this result. I may be diverging somewhat, yet it is so intimately connected with the subject that you will please allow me to give a few reasons which I consider are of great importance.

First. Intemperance is a broad term, and we may include under it sedentary habits. Man is required to get his bread in the sweat of his face. If a person is so weak that he cannot work, then he should take all the exercise, in walking, riding or gymnastics, that his strength will admit of; and this will prove to be one step in advance towards his own and his children's health.

Excellent and true was the opinion of Galen on temperance, over two hundred years ago, although ancient: "The throat destroys more than the sword; excess in either meat or drink causeth crudities; crudities causeth ill blood; of ill blood cannot be made good seed, and by this means parents often come by the death of their infants, even in infancy, and know not of it."

I doubt whether John B. Gough, with all his eloquence, ever placed on record for the benefit of man such brilliant truths on hygiene. The extremes in fashion are another source of intemperance, causing diseases of the nervous system, and producing baleful results upon those yet unborn.

Secondly. In selecting a partner for life to be a help-meet, utterly in disregard of health and temperament. It is well-known by modern physiologists that, if a man marries a woman with a like temperament with himself, they will not be likely to have any offspring; or if they should they will be under the painful necessity of following them to an early grave; such children seldom live to arrive at the age of puberty.

Thirdly, and lastly. Self-pollution, masturbation and excessive venery are undoubtedly among the most terrible and sinful causes of infantile mortality; and it being a delicate subject, it is seldom that parents speak of it to their children, and physicians do not to their patients as often as they should. Having warned the wayward youth frequently, allow me to give here one case selected from many that have come under my care. Mr. M——, a young man, or rather a boy of eleven years, tall of his age, slender and delicate frame, bilious and eucephalic temperament, called on me for medical treatment, after he had been told by others that they could do no more for him. Having examined him by percussion and auscultation, I came to the conclusion, notwithstanding his youth, that he was guilty of self-pollution, and was hastening on to quick consumption. So the symptoms indicated. Having said this to him in the usual medical parlance, he did not understand me. I then spoke to him in language that he could not mistake, and he acknowledged it. I then told him fearlessly and in a decided tone, that it would be impossible for him to recover unless he gave up entirely the dangerous habit into which he had fallen, never to return to it again. He promised that he would do anything, or take any medicine that was given him. He improved rapidly, and in six months had entirely recovered; and he is to-day a living example of one snatched from destruction.

Let us return to the lying-in-bed. Here, on all occasions, let chastity be regarded as a fundamental principle during the progress of labor. Any undue exposure by the midwife is highly reprehensible. If you are a stranger, undoubtedly on the first examination the patient will be fearful, and, consequently, the labor-pains less. Then, by all means, withdraw and leave her to the simple operation of nature. After a home-like feeling is induced all will be well, but even then be cautious as to intermeddling, so long as all is right. But if it should prove to be a wrong presentation, or a complicated one, then let your conduct be calm, yet persevering; and assist by manipulating, or, if need be, by preparing the mind, in order to save

suffering and perhaps the life of the child. It may become necessary to use instruments, and if it should, you will gently prepare the patient for any emergency, by making yourself at home, genial and kind. Avoid too much levity, as well as gloom, and always be cautious as to hope deferred, also whispering and ill-directed maneuvers—all have a tendency to excite and alarm the timid. If ever a woman needs manly kindness, it is in childbirth. Everything possible to render her comfortable in mind or body should be done. Explain all needful things, inform her that she herself is the midwife, and that you are present only to aid and assist the efforts of nature, if need be. Encourage patients, inspire hope and determination, that all will be well in due time.

Dr. Dewees says: "That man is but little used to the exercise of the social virtues who is ignorant of the influence a kind and feeling conduct has upon his suffering patient." To her it almost atones for the want of skill or experience, and to deprive her of it is withholding a right for which nothing can compensate.

We should endeavor, by social and agreeable conversation, to divert the mind as much as possible from the purpose of our visit, and the results of such benign influences brought to bear upon the mind of woman, not only has its present, but lasting effect; and you will afterwards hear the salutation, especially from the Irish, "Doctor, may God bless you."

There is another point intimately connected with the medical department of midwifery, that should not be forgotten, but taken into serious consideration, and by us, as medical reformers, in condemnation. It is well known that women at the present day are seeking every possible means, medical and instrumental, for the destruction of the human species in embryo. I would to God that this had been among among the lost arts.

A simple illustration will deter all sensible women from resorting to so heartless an undertaking. For instance, ask her this question: "Madam, can you get a hickory nut out of its shuck before it is ripe, without injury to the shuck?" and she will see the point of comparison, and answer "No." "Then, madam, how am I to get the fœtus from your womb before it is ripe, without injury to that delicate and important organ? Various diseases of the womb are the result of such acts; you will drag out a miserable existence, and not be able to answer the end of your being for which you were designed." In most cases they will hear your advice, return home, and, in due time, send for you.

CONDUCT AFTER CONFINEMENT.

Here I shall be brief, and simply state what I know to be true, and if I say no more than relate what others say and know, then it will be simply a confirmation of a fact, and the truth is none the less of a truth for being repeated because others knew it before.

First. The application of the bandage, although, by some, considered a useless appendage, and, by others, regarded as a trifling matter, and left wholly in charge of the nurse, or frequently to the patient herself, I admit, unless it be properly applied, it becomes worse than no bandage at all. I have seen nurses in applying the bandage, both to mother and child, commence at the top to adjust the pins. The injurious consequences resulting from this gross ignorance is highly censurable. But a proper application of a suitable bandage will be apparent to all who understand the anatomical and physiological structure of the parts over which it is to be applied. (Drawing presented.) Having used various kinds, I consider the one here presented to be superior to any form yet devised. The ladies all seem to like it, and this is one good evidence of its importance. The application of it is simple. First, request her to raise the knees so as to stand on her feet, still lying on her back. This will be an easy position for her to raise the hips and give the midwife an opportunity to adjust the bandage in its proper place. This is not all. The present position will relieve the abdominal muscles and broad ligaments of the womb, and also give to the midwife an opportunity to apply the hand edgewise above the "os pubis;" then, with an upward pressure, grasping and contracting the womb, and still retaining the pressure until her knees are put down. The bandage should first be drawn tight by lifting before lapping for pinning, and the first three pins are of more importance than all the rest, in keeping the womb in its proper place. This will take off all strain from the broad ligaments of the womb, and give rest and repose to the patient.

Secondly. The next thing of importance to be taken into consideration after confinement is, the mitigation of the after-pains. When I first commenced the practice of midwifery, twenty-five years ago, I thought, as did the old women, that after-pains were necessary and useful, in order to contract the womb and expel the coagulum. But sense and a practical experience have led me to a different conclusion, so far as the necessity of excessive pain is concerned; although the blood in the womb will follow the detachment of the placenta as certain as there is vitality in the system. But this is no reason

why it should remain there to coagulate, and impose upon the womb unnecessary labor to expel it, while we have the means in our power to obviate it. The old practice of giving opium will mitigate pain for the moment. Yet its remote action is one most injurious; it will check secretion and excretion; the result of which will be milk fever, and not unfrequently purpura. In order to be understood, I can do no better, perhaps, than to give the conversation connected with the first case wherein I succeeded in preventing after-pains. Shortly after I had commenced the use of veratrum viride, twelve years since, I was called to attend a woman in labor, one whom I had attended three different times before, and who always had suffered much with after-pains. Observing a flush in her face and the pulse accelerated, as is usual after confinement, I gave veratrum, knowing its sedative effect. This occurred early in the morning. Towards evening I called to see her, and was met in the hall by the nurse. She, raising her hands, exclaimed: "Oh! Doctor, I am glad you have come; there is something wrong with Mrs. ——, she has had no after-pains. Don't you think her dangerous?" I went to her bed-side and asked her how she felt. "Oh, I feel easy." At the same time laying my hand on her forehead I found it was moist, and she doing as well as could be expected, and far better than I anticipated. I assured her that it was the medicine she was taking that equalized the circulation, and kept her constantly flowing, that prevented the after-pains; the sequel of which proved true. I have since used it in every case of lying-in, except with the first child, when the tonic power of the womb is usually sufficient to contract at once, and leave no room for the formation of coagula.

The therapeutical action of veratrum to lessen pain, I consider to depend, first, on its sedative action, and, secondly, on its emmenagogue properties. I usually order it given at intervals of one, two or three hours, according to its action. Some will require more, and others less; but it should be given until it produces the desired effect. The patient's head should be well elevated; and sometimes it may become necessary to apply dry heat to the abdomen. I always order physic on the second day. I prefer oil to be taken in a cup of hot coffee; and permit a change of apparel on the third day, and also request them to lie in any position in which they feel comfortable; if they become tired of lying, to sit up, and if tired of sitting up, to lie down. By thus obeying the instinct of nature, they will gain in strength much faster than by following the old custom of lying in bed without a change of clothes for nine days.

Is it any wonder that child-bed fever was formerly so prevalent? We are told that it occurs as an epidemic; be this as it may, I am, nevertheless, of the opinion that it may be induced, at any time, by permitting one to lie uncleanly for nine days. I have not seen but one solitary case in all my practice, for over twenty years, and this occurred, as the patient acknowledged, by her own imprudence, in sitting in front of an open window, her child being at the time over two weeks old; but she soon recovered.

One word in reference to the child. I consider it the duty of the midwife to see that the child is properly washed and dressed, unless there be present an experienced nurse, or one in whom you can place confidence. Lard or starch should be used freely for the first washing, and borax afterward, instead of soap, for the reason that it is often the cause of what is termed milk-crust, or scald-head; but the use of borax will keep the skin moist and free from all skin diseases.

I think the position of the child at birth is of the utmost importance, in view of the fact that if the foramen ovale of the heart is not properly closed at the first inspiration, the child will be liable to carbonized congestion, producing a blue appearance, and probably death. This is caused by the foramen ovale of the heart not being properly closed. Turn it on the right side before it cries, for it is at this moment the heart should be free from all pressure, so that the blood may become oxygenized at the first inspiration. I have practiced this for the last ten years, and have not lost one since that has lived to cry.

DYSPEPSIA.

A Paper read before the Annual Meeting of the Eclectic Medical Society of the Thirty-second Senatorial District, at Brocton, Chautauqua county, January 5th, 1869. By C. C. JOHNSON, M. D., of Gowanda, N. Y.

Look the world over, and nowhere among the civilized nations of the earth will you find so large a proportion afflicted with bad digestion as you will find among the American people.

We seem to be a nation of dyspeptics. Not, however, because it is an inheritance transmitted to us by our fathers. It is a condition which we have brought upon ourselves by the continued violation of physiological and hygienic laws.

In the good old Puritanic age, when rye and Indian bread was the staff of life, and the bill of fare generally consisted only of the "substantials," *dyspepsia* was almost unheard of. In those days, the Dental profession was hardly known and the physician was rarely called. Butchers' bills were then paid instead of doctors'. *Their* feather beds were made of straw.

Stern necessity compelled them to physical exertion, and neither their means nor consciences would allow of dissipation. Hence they were a robust and hardy people. The pioneers of our country, generally, were vigorous and strong, and knew comparatively nothing of the suffering and loss of health and strength caused by *indigestion.* But their children and children's children, how different! Since the refinements of civilization and the luxuries of wealth have been introduced, *dyspepsia* has almost been the rule rather than the exception.

The indulgent mother will allow her children all sorts of indigestible food, such as highly-seasoned pies and puddings, hot cakes and candies, which are unfit to be put into the human stomach; and the result is, that those little ones, at an early age, become sufferers from imperfect digestion and assemilation.

The Americans are preëminently a fast people. They live rapidly. Their mental and nervous systems are constantly overworked from an early period.

The American youths are *noted* the world over for their precocity.

Our method of cooking is quite too frequently absolutely wrong, and the idea of gulping down a meal in five minutes that should

have required thirty, is an abominable outrage upon the human stomach, and sooner or later the outraged organ will suffer by it. The American pie and cake system is altogether wrong, and should receive the unmitigated condemnation of every physician. The refinements of cookery are in some respects a nuisance, and a great drawback on the health of the community. Bread made from superfine flour is not nearly so nutritious and healthful as that made from flour which contains all the elements of the original grain. The refinements in that respect are neither sanctioned by science or experience. Food should be prepared with reference to its digestibility and nutrition, rather than to please the palate, as is generally the custom.

Good blood cannot be formed out of defective chyme, and, as every organ and tissue of the body is formed and nourished by the blood, it must necessarily follow that the effect of bad digestion must be felt by every part of the system.

The brain, the organ of thought, is affected by it, and the person so afflicted is unable to think clearly and vigorously. The whole organism is, therefore, contaminated in direct proportion to the departure from perfect digestion.

It is almost impossible to exaggerate the importance of the digestive organs to the cure of disease. In every acute case, surgical or medical, the modification of the results of our efforts depends almost entirely how far, how judiciously or unjudiciously those organs are watched over, whether they are well or ill-treated, either by the scientific guidance of the skilled physician, or according to the good sense of an experienced nurse or the instincts of the patient.

To an unhealthy condition of the digestive viscera, physiology enables us to trace step by step, more or less distinct, many chronic diseases not manifested in the organs themselves, but affecting the whole body. If nothing but gout, tubercle and degeneration were referable to it, that would be sufficient to engage our most serious attention.

A large proportion of the cases of sickness that physicians are called upon to treat are caused, directly or indirectly, by indigestion; and any physician who is skillful in treating those cases will have an extensive business in treating those cases alone.

There are several varieties of dyspepsia, each class presenting somewhat different symptoms. In fact there are no two cases exactly alike.

The indigestion of class one is caused by a chronic inflammation of the mucous membrane of the stomach. The patient suffering from that difficulty will complain of more or less uneasiness about the stomach, especially after meals; tenderness on pressure over that organ; tendency to vomit, especially if indigestible and irritating food has been taken; a sense of thirst after meals; sometimes a dryness of the tongue, acid eructations, gas in stomach and bowels. After a meal is fully digested, the patient feels more comfortable. That sense of oppression in the epigastric region is gone in a great measure. The tongue presents a smooth, red and glossy appearance, or has a white coating in the middle and its edges clean and red. The pulse is somewhat increased in frequency—tense and thread-like. The bowels are usually rather constipated. If the inflammation has extended to the mucous membrane of the bowels, there will be a tendency to diarrhea. Sometimes ulceration in patches upon the mucous membrane of the stomach will take place. In those cases nausea and vomiting are quite common, and pus will be found upon a microscopical examination of the food ejected from the stomach. Thickening of the mucous membrane of the stomach may be the result of such chronic inflammation.

I assisted, about two years ago, in the post-mortem examination of a lady whose death was caused from thickening of the mucous membrane of the stomach, in the region of the pyloric orifice, to such an extent as nearly to close the passage. Death by starvation was the result.

In the treatment of that class of cases the most rigid attention must be paid to diet and hygienic regulations. All irritating and indigestible articles of food must be avoided. Meals should be taken at regular periods, and at no time should the stomach be overloaded. Temperance and regularity should characterize the habits of the patient in every respect. The bowels should be "regulated" as far as may be by proper food. Fruits are valuable articles of diet, if acidity of the stomach does not render them objectionable. Cracked wheat, rye and Graham puddings are excellent food. Bathing is also important.

If acidity of stomach and constipation of the bowels are present, I am in the habit of prescribing a concentrated preparation of the neutralizing mixture. Also the following, viz.:

℞ Hydrastis Canadensis, pulv.,
Rhei., pulv.,
Carbonate of Ammonia, pulv. aa.

Mix—Dose, ¼ teaspoonful stirred up in a little cold water ½ an hour after meals.

The following answers a good purpose:

℞ Muriate of Hydrastina,
Leptandrin aa

Mix—Triturate with sugar of milk. Dose, from 2 to 5 grs. before meals.

The following acts well in many cases, given in connection with the preceding:

℞	Fluid ext. of Alnus,	
	" " Euonymus,	
	" " Taraxicum,	
	Tr. Xanthoxylum Berries, aa	℥ ss
	Tr. Nux vomica,	℥ ii
	Neutralizing Cordial,	ʒ iv

Mix—Dose: one teaspoonful on arising in the morning and also on going to bed.

If this does not keep the bowels regular, increase the dose. When ulceration of the stomach has taken place, I use Fraserin or the Fluid Ext. of Frasera. It seems to have a specific influence over ulcerated mucus surfaces. Muriate of Hydrastina is also valuable. Hydrastis Canadensis, pulv., 2 parts, to Chlorate of Potassa 1 part. Make an infusion, give in small doses, and repeat the dose often.

An infusion of Violet Root acts favorably, when there is irritability of the stomach. From 5 to 10 grs. of Carbonate of Bismuth, stirred up in a little water, and taken half an hour before meals, is, in some cases, an efficient remedy.

Another form of Dyspepsia is that in which a relaxed condition of the mucous membrane of the stomach is found to exist. There is generally a vitiated condition and an abundant secretion of the gastric fluid. Acidity of stomach is often a troublesome symptom. Fermentation of food in the stomach and bowels often takes place; and, therefore, there is frequently a tympanitic condition of those organs. The tongue usually presents a relaxed and flabby appearance, though often it looks quite natural, and the bowels are regular. In some cases there is a tendency to a diarrhœa.

Treatment of this form of dyspepsia should be stimulating. I have found the following a very efficient remedy:

℞	Apocyni andrasemifolii, pulv.,	
	Cypripedii, pulv.,	aa ℥ i
	Capsici, pulv.,	℥ ss
	Lobeliæ Inflatæ Seminis, pulv.,	ʒ iii
	Socotorine Aloes, pulv.,	ʒ i
	Castile soap, pulv.,	ʒ iii
	Gummi Arabici, pulv.,	ʒ ii

Olei Piperitæ, q.s.
Faciat Pilulas, 3 grs.
Dose, from 1 to 2 grs. just before meals.

℞ Aromatic spirits of ammonia, in ʒi doses, in a little water, often acts favorably.

Pepsin, or a calf's rennet, digested in a quart of native wine for ten days, will benefit many cases. Dose, from one to three teaspoonfuls before or after meals.

I have given the following with good success:

℞ Fluid extract of Alnus,
" " Myrica Cerifera,
" " Hydrastis Canadensis, aa ℥ss
Neutralizing cordial, ℥vi
Mix—Dose, teaspoonful before meals.

Another form of dyspepsia often met with is connected with a deranged and torpid condition of the liver, and an inactive condition of the bowels, and is produced by a morbid condition of those organs. The tongue usually presents a yellowish or whitish appearance; urine high-colored and scanty. As the liver fails to perform its function properly, the kidneys have a depurative action thrown upon them, which belongs to the liver; hence an irritation and a degree of inflammation ensues in those organs; frequently the patient complains of heavy, dull pain in the right side and under the right scapula; there is a bad taste in the mouth on rising in the morning; and a sense of fullness and oppression about the epigastric region, especially after meals. The countenance presents a pale, sallow appearance, and wears an expression of anxiety. There is a gnawing sensation about the stomach, and frequently a morbid craving appetite. A degree of debility pervades the entire system, and a gradual emaciation follows. The food does not seem to nourish the body. Dizziness occurs about the head on arising quickly after stooping; there is inability to concentrate the attention upon any subject save the patient's own bad feelings; lowness and depression of spirits, hypochondriasis. The mind of the patient is constantly brooding upon himself, and there is a disposition to magnify every ache and pain to which he is subject.

This form is frequently connected with an irritable condition of the stomach, especially if the disease has existed for a considerable time. When that is the condition, the case is slow and difficult to cure, and the skill and resources of the physician are brought to a thorough test.

In order that this class of cases be successfully treated, a proper regulation of diet and exercise must be rigidly enforced. The attention of the patient must be diverted from his own malady, and he should become interested in some employment that will furnish a healthy exercise.

I deem it of the utmost importance in the treatment of these cases, to regulate the bowels by food, as far as you can, and by remedies that are not irritating to the digestive organs.

The following prescription has done well in my hands:

℞ Fluid extract Leptandria,
" " Apocynum Andrasemifolium,
" " Enonymus, aa ℥ ss
" " Taraxacum, ℥ i
Tr. Xanthoxylum Berries, ℥ i
Tr. Nux Vomica, ʒ iii
Neutralizing Mixture, ℥ vi

Mix—Dose, a teaspoonful at 10 A. M., and again at bed-time; or sufficient to keep bowels regular. At the same time give also the following:

℞ Tincture of Quassia,
" Aloes, aa ℥ jv
" Nux Vomica, ℥ ss

Mix—Dose, one teaspoonful before meals.

The Compound Syrup of Stillingia has a good effect in some cases. I also use the following with good effect:

℞ Fluid extract European Gentian,
" " Populus,
" " Asclepias Tuberosa,
" " Hydrastis Canadensis, aa ℥ ss
Tincture Aloes, ℥ i
Neutralizing Cordial, ℥ vi
Acetate of Potassa, ʒ iii

Mix—Dose, a teaspoonful before meals.

There are many other forms of indigestion, which will have to be treated according to the peculiarity of the case and the idiosyncrasy of the patient.

By a continued perseverance in the treatment of those cases, they can almost all of them be effectually cured, unless there is some schirrus, or malignant affection of the digestive organs.

TWIN-SISTERS.

By HARMON PEASE, M. D.

I was called on Friday morning Oct. 23d, 1868, at 3 o'clock, to assist Mrs. J. O. N. in parturition. On inquiring, I found that she had been in labor only three hours when the membrane broke, after which the pains gradually became less, and at my arrival had nearly ceased. On examination, I found the head of the child already in the lower strait, and to all appearance, except the absence of pain, would speedily be delivered. I waited one and a half hours, but there was no improvement or advancement. Instead of giving ergot, I applied the forceps and assisted in the delivery. The umbilicus was wound several times around the left arm at the elbow. After separating and passing it to the nurse, I waited fifteen or twenty minutes for a pain to assist in the delivery of the placenta. Finding no folds at the base of the cord, I introduced my hand, in order to ascertain if there were any attachments of the placenta; also, with a design to excite contraction of the uterus. When passing in my hand in a contracted form, I felt what I took at first to be an arm; then passing the hand in an opposite direction, I perceived the head of a second child. I withdrew my hand, and did not attempt the removal of the after-birth, believing it to be a double one; for even an attempt for its removal would be improper as well as impossible, and probably dangerous both to mother and child. I applied a bandage, and ordered friction over the same every hour, and left her to the recuperative efforts of nature.

She was as comfortable as could be expected, yet somewhat frightened, as also were her friends; but I endeavored to quiet their fears by informing them that there could be no danger so long as there was no hemorrhage; her pulse being normal, and there being a gentle perspiration, all would be well in due time; that she must have patience, and give time for the exhausted womb to rally, preparatory to the renewal of the pain, to contract and expel the child.

Thirty-eight hours from the birth of the first child, I was summoned to her bedside again, she having slight pains, as she described them, similar to after-pains. On examination I found the chorion fully distended, and after a few pains, ruptured the membrane.

The first thing conscious to the sense of touch was a descending hand. I then withdrew my hand, and made a successful attempt by external rotation in removing it; then the head presented, with the face to the os pubis. This child was thus delivered, still-born, thirty-nine hours after the first. Its weight was six pounds. The womb readily contracted, and the after-birth was easily expelled. But the lochiæ were insufficient. Then I gave my usual remedy, veratrum viride, and she began soon to improve. No further difficulty manifested itself, and she rapidly recovered. On the sixth day from the delivery of the first child she left her bed and attended to her domestic duties. I need not tell you to what nation she belonged.

Gentlemen, allow me to inquire what there is to be learned, if anything, from this case? To an experienced midwife, the above, undoubtedly, is no novelty. But to the young and inexperienced, it presents two important points to be taken into consideration in like cases. In the first place, we should not use any force, or touch the after-birth until the second child is born, unless we are well satisfied there are two distinct placentas, as sometimes occurs; and, secondly, when either hand presents, whether it be double or single birth, we should not delay the rotary motion by external manipulation in order to remove the descending hand upward. This is done in a very simple manner. If the hand should present on the right side of the head of the child, then the motion or force should be upward on the right side of the abdomen, and downward on the left, and *vice versa*.

The above is the fourth pair of twins that have fallen to my lot, in two of which there was but one after-birth, the others having two distinct placentas, and those having two separate and independent habitations are still living at the respective ages of eight years; but in the other two cases of one apartment each, save the chorion, only one in each lived. Whether this has anything to do with the life of the one or the death of the other I am not able to say; but this is simply my experience. Also, the navel-cords of the ones that died were not more than half the size of the ones that lived; and, in those cases which lived, it was equal in size, showing a difference in the capacity for full circulation, which may account for the difference in the size and constitution of the one as well as the other. Be this as it may, I merely mention the circumstance, based upon my limited observation, and leave you to draw your own conclusions. For the want of articles in like cases, we lose a large amount of facts that might be of great importance to the profession if they were reported and recorded.

PSEUDO-MEMBRANOUS CROUP.

By HARMON PEASE, M. D.

On the 15th of November, 1868, I was called to see a child eight years of age, who had been laboring under the above disease for three days, without any medical treatment. My first impression on seeing the patient was that it could not recover; for both inspiration and expiration were short and laborious, with a metallic sound; the head was thrown backward; countenance flushed and swollen, with lips white, and the voice fallen to an inaudible whisper. The mother of the child had already, in her own mind, given it up to die. She informed me that she had lost one with the same disease, three years before, under Old School treatment, and this one was worse than the other. I informed them that we would try and see what could be done; and if I could but give it relief and keep it alive until morning, we might have hope of saving it, but the chances were that the child would die.

I commenced, and treated the child as follows: Chlorinated soda, one part; water, five; applied every ten minutes with the probang; also the chlorinated soda, full strength, to the neck, chest, and between the shoulders; and continued this for one hour without any apparent change. Then, the mother protested against any further treatment, saying, she knew the child must die; why torture it any more. I gently informed her that I was only torturing the disease in order to save her child. I then increased the soda with equal parts of water, and added to the external application equal parts of spirits of turpentine, applied with a compress to the throat. Then, every application began to do its work; the parents observed its wonderful effect and said no more, but permitted me to proceed. I also gave spongia after each application of the probang; ten drops of the mother tincture added to half a tumbler of water; dose, one teaspoonful; and, after two and a half hours of perseverance the child could speak. I then ordered beef tea, and left for the night, after giving strict orders.

The next morning I found my little patient sitting up. She greeted me with a smile. She was still not out of danger. I remained two hours, and continued the treatment as the day before, when I could

distinctly hear a rattle in the bronchia, showing that the membrane was becoming loose.

I then ordered the following: Acetated tincture of lobelia, acetated tincture of blood root and syrup of ipecac, equal parts, ℥j., with the addition of twenty drops of the tincture of capsicum. Dose—One teaspoonful every fifteen minutes, until it produces emesis. I continued the expectorant in alternation with spongia for three days, when all appearances of this dreaded disease disappeared. The parents of this child were very poor, but the grateful feelings manifested for the recovery of their child amply repaid me for the time spent. The whole neighborhood was happily disappointed, for no one, not even myself, expected the child to recover.

FIBROUS TUMOR OF THE UTERUS, COMPLICATED WITH PREGNANCY. AUTOPSY.

By T. ROBENS, M. D.

On the 19th day of May, 1868, 7 o'clock P. M., I was called to attend a case of confinement, Mrs. P. C., of Stillwater. She had been in labor since 3 o'clock A. M., and had a midwife in attendance, who had attended her in two previous confinements. The midwife told me, that labor commenced with a natural presentation of the child; that her symptoms were very much as on former occasions, only with increased labor; that about 9 A. M., she could feel the child's head, and at one time the head came over one-third into the world. She then thought that the woman would be delivered immediately, but at 10 o'clock her pains nearly ceased, and vomiting commenced, with severe pains in the upper part of the stomach. The patient became very much alarmed, and requested her to send for a physician. She told her there was no cause for alarm, and that she would soon be delivered. Notwithstanding, she rapidly grew worse, and the husband came for me.

On examination I found that the vagina was sufficiently dilated for the passage of a common-sized child, but the child could not be felt without introducing the whole of my hand. This produced severe flowing. I was then told that she had one severe spell of flowing previous to my coming. I saw at once her case was hopeless. The child had every appearance of being dead. She being in great agony, I put her under the influence of anodynes. About 5 o'clock the next morning she expired. Permission for a post-mortem examination was granted me. I found on opening the abdomen that the uterus was ruptured, and a large fibrous tumor weighing eight pounds adhered to the upper and front part of the uterus. The upper and back part was entirely ruptured, so that the child and tumor laid upon the bowels. The uterus had grown *fast to the peritoneum.*

This patient had always enjoyed good health, and had been unusually well during the latter part of her pregnancy.

FATAL CASE OF PNEUMONIA, WITH FIBRINATED CLOTS, FROM INJURY OF THE CHEST.

By W. H. BOWLSBY, M. D., Brooklyn.

Mr. J—— C——, aged seventy-eight years, residing in Lawrence street, Brooklyn, fell, striking his left side just below and to the left of the mammarial region, on the curb-stone, which hurt him some, but he kept about his work as usual. After a few days he was taken with pleuritic pains and inflammation of the left lung. I was not called till the eighth day after inflammation had set in. I examined his chest and found that complete hepatization had taken place. I also found that the right lung was involved, and the case assuming very grave symptoms. I saw him on the following day, and found him breathing very quick and laboriously. Still he could talk and was quite rational, and did not seem to realize that he was near his end. Suddenly, while I sat by his bed-side, he put out his hands and said, "Doctor, raise me up." I did so; he sat a moment, and then laid down and died with scarcely a struggle. I expressed a desire for a post-mortem examination, to which the friends readily consented. Accordingly, on the following morning, assisted by Drs. H. E. and L. B. Firth, I opened the thorax. I found the left lung entirely softened and broken down. The right lung was congested; and the lower lobe in a state of red hepatization. The serous membrane lining the thorax, in the vicinity of the injury, was discolored and softened. Within the aorta was a fibrinated clot nearly a foot in length. I also found a clot in the right ventricle of the heart. The other viscera were apparently healthy, and but for the injury and subsequent carelessness, he might have lived many years.

THE TRUE MEDICAL SYSTEM.

By HARMON PRASE, M. D.

All systems are subject to change. Even the divine law itself does not permit to stand still. The sun varies in his course; the seasons change; phenomena occur above us, as well as in the earth beneath us. Mount Vesuvius sends forth its stream of molten lava, mingled with fire and smoke, evidence of subterraneous change.

All theories have their day. Man, the creature of God, however unmindful of him, is ever subject to His divine will and pleasure. Time accomplishes all things. Never shall I forget the rebuke given to Fremont and Hunter, who, during our last war, proffered to the slaves their freedom.

One of the greatest patriots that ever lived said, "No, the time has not yet arrived, but if it ever should come, I shall reserve that right to myself." And it was not long before that time did come. By the will of God, the lamented President issued forth his proclamation of emancipation; and it is not surpassed by any document ever penned by mortal man; not excepting the Declaration of Independence itself; for it was, in fact, only a new display of the spirit of that important document.

We never were independent until the consummation of that proclamation of freedom. All first principles, like the Declaration of Independence, are capable of improvement, either in the arts or professions; but this does not destroy the first principle, in fact. Who can observe the beautiful engine of to-day, and not admire its simplicity of action in all its parts and its wonderful adaptation to the wants of the present age. Although it differs greatly in appearance from the first engine that came up the Hudson, under the direction of Fulton (the originator of the application of steam as motive power to boats), still, the fundamental principle is there. So it is with the Eclectic medical practice.

All reforms are slow in their growth. "Like the tall oaks, which from little acorns grow." Thanks be to God for the victory. Having lived to behold medical reform almost from its infancy established upon the basis of truth, Eclecticism is the polar star to attract all medical reformers and philosophical seekers after truth.

Dr. W. Beach, of the city of New York, educated in the old school, inspired by the truth and simplicity of Dr. Thomson's theory, improved and enlarged Thomson's reformed Materia Medica, and his works, containing all things needful then known, now stand a library within themselves. But still our authors come; if not in so great numbers, yet in usefulness, simplicity and honesty of purpose. Our persecutors are now few in numbers, comparatively, and will soon be fewer still. Our prosecutors are fearful to attack their peers. We do not fear to be imprisoned, for we stand to-day equal in the law, and none to fear or to make us afraid.

Here the way is clear to advance forward, and not backward, grovelling amid the dark ages. So far as the origin of Eclecticism is concerned, it matters not to me how old or how young it may be. It is enough for me to know its superiority over all systems of medical practice that now are or have been; believing our time may be more profitably spent to improve and perfect it, rather than in looking back into the dark ages for historical tokens to establish its ancient birth. It is a well-authenticated fact that herbs, roots and barks were first prescribed for the sick, although at first in a crude form, it is true, and by the hand of the inexperienced, but time has wrought a great change, and to-day we are able to proclaim to the world and challenge contradiction, that the present Eclectic system of medical practice is based upon physiological laws, and is the true medical practice. As the name imports, we select and collect from every source those healing balms which are so profusely provided by Him who knew all things from the beginning, and we know by practical experience that the vegetable kingdom abounds in safe and efficacious remedies, which will eradicate disease from the human system by assisting her feeble efforts in removing all obstructions.

When the blood, which is the life, is at fault, we use those means which experience has taught us will act directly through the medium of the circulation, either internal or external, or both, in removing the superabundant formation of albumen, or other causes which produce the abstraction in the life-giving supply of the wornout material. If the biliary organs are obstructed, it becomes necessary to neutralize, correct and remove the causes, and hereby prevent the destruction of that important living mucus membrane of the internal vicera.

If the kidneys do not properly secrete, dimetics become important auxiliaries in expelling from the system the superabundant collection

of salts of sodium, ammonia, phosphates, &c., which, if not removed, will, by forcing themselves upon other organs, become an irritant, and produce chills and other symptoms of disease of the kidneys.

If the capillaries are obstructed, it is evident that they should receive, as they deserve, a due share of our attention, by a judicious use of sudorifics, and bathing with alkalies or acids, as circumstances may indicate; and, by thus observing the dictates of nature, and assisting her, we, as physicians, become useful to our fellow-men.

Having passed through its trials and persecutions, like the religion of our Savior, it has steadily progressed to a position equal in the law, now it must stand on its own merits or fall by its demerits. We are, as yet, but babes in the medical laboratory. But when we come to understand the peculiar and specific action of such medicine upon the human system, as we do Veratrum, Gelseminum, Podophyllum and Lobelia, and a number of other articles of our Materia Medica—then we will be able to say to disease—Peace be still; prey not upon the human system that is destined to live its allotted time and fulfill its destiny.

We hear men talk about the vital principle by which man is sustained, but who can tell in what this vital principle of man consists? He may speculate and theorize in vain. Man, made in the image of God, may desire to know, but is not permitted to penetrate into the hidden mysteries. "Thus far shalt thou go and no farther;" therefore we must content ourselves with what is tangible. We are permitted to know, by experience and observation, that human life cannot long be sustained without the all-important aid of the different elements by which we are surrounded, being a compound material body, composed of the various constituents pervading the universe. It is self-evident to any thinking mind that man cannot live on bread alone, and is it not equally evident, when disease attacks our bodily frames, that it will be in vain to remove it by any one medicine, although it bears the name of the elixir of life—the Goliath or Sampson of the ancient Materia Medica. Unless we know that it acts in conformity to, and in harmony with, the physiological laws of our being, it is worse than useless to give medicine. If we know the specific action of the medicine given, then we can give it with confidence and success.

As Eclectics, we repudiate depletion and corrosive poisons, either mineral, vegetable or animal, and confine our operations to those numerous aids so bountifully supplied and placed within our reach.

We are not content with the old mode of depletion, although it is not my intention to attack personally my opponents; but I will simply give their own version of their system, and leave the public, who are capable of judging, to choose for themselves.

Hear what Dr. Good says, one of their own authors, whose works find a place in every library: "The science of medicine is a barbarous jargon, and effects of our medicine on the human system are in the highest degree uncertain, except, indeed, that they have already destroyed more lives than war, pestilence and famine combined." Is it needful for me, in view of such facts from so high an authority, to say one word? Such evidence in a court of justice would hang a criminal. And again, the distinguished Dr. Rush, celebrated for his heroic practice, says: "We have assisted in multiplying diseases; we have done more, we have increased their mortality." Dr. Abercrombie, another celebrated author of the old school, says: "We own our system defective, and the action of our remedies in the highest degree uncertain." Who does not know, in view of such evidence, that the old (so called) science of medicine, as viewed from their own stand-point, needs no refutation from us, but stands, as they themselves say, a barbarous jargon. We rest and are satisfied, and need no further proof of the inferiority of their medical system.

As I have said before, we, as Eclectics, select and collect from every source where truth is found. It is our duty, as well as interest, to watch over and protect these sacred principles which we have adopted as the rule of our faith, and see to and defend them from all innovation, from whatever source it may emanate. I think I have shown briefly and conclusively where the true medical system may be found. But we cannot, neither do we desire to, deny the truth of the origin and progress of our system. We know by sad experience the difficulties that we have had to contend with. Like an Eastern farmer who, a score of years ago, emigrated to the far West, denying himself society and the necessaries of life, constantly laboring to fell the forest and till the land, in order to gain a home for his children. So it has been with the pioneers of the Eclectic system of medical reform. Men have left the plough and the shop, without previous preparation or an education, and entered upon the medical field of reform, surrounded by the old school of renown, with whose practice they had become disgusted. The very sight of our neighbors' ghastly appearance, with the loss of their teeth and afflicted with rheumatism, as well as mercurial ulcers too loathesome to behold. Was not this

enough to drive an honest man to seek something better? As regards my own feelings at that time, I was fearful if taken sick that I might be their next victim. But, thanks be to God, through Eclecticism I have escaped thus far, and have the happy consolation to know that I have been the humble instrument in saving others from a premature grave, as well as from dragging out a painful existence on earth.

VAGINA-INJECTOR.

By G. W. KING, M. D., Saratoga Springs, N. Y.

The Vagina-Injector is better than any Vaginal Syringe, for the following reasons:

1st. It is less complicated.

2d. It is easier used and cleansed.

3d. It is less liable to be damaged by use, having no pistons or screws to be too tight or too loose.

4th. It is charged with more ease and certainty.

5th. In its use there is comparatively no danger of soiling garments, bedding or carpets.

6th. It is certain, with its dilating and open tube, to carry a cleansing, or medicated wash, to all the parts of the Vagina, or it will make the applications locally.

7th. This is the only instrument that separates and removes without delay and injury any secretion that may be upon the mucus membrane of the vagina.

DIRECTIONS.

When a cleansing wash is to be used, fill the bowl (or enlarged part) of the Vagina-Injector. Lie on the back, enter the tube about an inch into the vagina, tip the instrument so that the wash will pass into the tube, cause successive movements of the tube into and almost out of the body, between one and five minutes, moderately rubbing the end containing liquid over every part of the lining of the vagina, then draw the tube nearly out, lower the bowl, and allow it thus to remain for a moment, so as to permit the wash, mingled with impurities, to return.

While the liquid is returning to the bowl, if the female can take a stooping position, the empty tube should be moved into and almost out of the body a few times, so as to cause the mouth of the tube to collect and remove any matter that has not been floated out.

With the body in a partially upright position, the tube may sometimes be moved advantageously forwards and backwards during the washing.

A local application may be made to a rigid or diseased *os uteri*, by having the patient in a stooping posture while entering and withdrawing the tube, and on the back during the application.

How to adjust the instrument, vary its movements or change the position of the body for differing or casual cases, a few trials will dictate.

When an ointment or medicated wash is used, a quantity sufficient to thoroughly cover or wet the vaginal membrane is all that is necessary. The same rule should be observed for applying a medicinal preparation that has been given for a cleansing wash; except, when using the former there should be no moving of the tube in a condition or way to extract from the vagina. While being worked, have the mouth of the tube the lowest, and containing some of the preparation.

For conveying liquids into the instrument, a funnel, pitcher, spoon or bottle can be used. The instrument can be *immersed* in a cleansing wash. A few inches of the outside of the tube should always be wet with the same kind of liquid put inside, unless when making a *local* application.

Ladies should request their medical advisers to prescribe suitable washes, telling how frequent to use and how long to continue them.

ADDITIONAL REMARKS.

A diseased vagina usually has disease-generating and confined matter within it, which must be removed before healing can begin. Those who suppose that a contracting vagina can be effectually washed out by merely injecting a fluid into it, without the employment of friction, should think how unclean a vial containing some adhesive impurity will be by only turning a fluid into it and turning it out. Merely soaking or rinsing is not the best way to purify. Among the unnumbered appliances and compounds for washing clothes, the observing, reflecting washer cannot find anything by which to dispense, safely and effectually, with rubbing in some form. Inject into a cavity having an expansible, contracting opening, a cleansing wash, and if there is no chance for the impurity to escape through the injecting tube, there will be comparatively a small quantity, if any, of the offending matter removed when the opening contracts. As sure as the Vagina-Injector is faithfully used, it will take from the vagina all impurities.

For the same good reason that impurities should be removed from the diseased parts, none should be returned by an unclean instrument. Cleanliness is emphatically preventive and curative.

In order that the contaminating matter, which may be hidden in the folded parts of the vagina, may be most easily reached, detached

and diluted, the larger the tube used the better, provided there is not caused too much pain by an unjustifiable stretching of the diseased parts. A reasonably *persistent* use will relieve tenderness and soreness and overcome muscular rigidity, as well as remove any fear about the instrument being injurious. Nos. 2 and 3 are intended for adults, and No. 1 for the young and a few exceptional cases among adults.

A brief observation should convince even the most timid that owing to the *quantity* of material put into the Vagina-Injector, it is *not* a dangerous instrument. Also, that the bluntness of the smooth edge of the tube (saying nothing about the presence of liquid at its mouth when used) prevents the instrument from causing pain, except where there is much soreness or vaginal rigidness, and allows the desired friction without injury.

A little reflection concerning the action and power of this instrument will satisfy any one of ordinary mechanical mind, that pistons and valves are worse than useless in a vaginal instrument, because they force liquids out of the vagina without doing the desired work—making the effect more vexatious than curative.

Use will prove to the candid doubter that this instrument, which is as simple in its operations as the workings of nature, will do what other inventions of the kind have failed to accomplish, and with no stronger objections than may be urged against any improvement however beneficial. Practically, it has proved a success. In short, the instrument satisfactorily declares its own good qualities. Physicians and invalids who have had the best of reasons for discouragement about prevalent female diseases, which cause a multiplicity of woes, can now have a pleasing hope.

That physician who has not thought that the vagina is a folded, wrinkled organ, with a dilatable contracting mouth; that within the wrinkled parts acrid secretions may be generated or deposited, and do destructive work; that a small tube, because it does not dilate enough, never can find such acrid secretions, or a large one, that is nearly closed, permit their exit; that if two sore surfaces like the sides of a diseased vagina are allowed to remain long in contact while healing, adhesion and serious deformity is liable to be the consequence; that nature has not forbidden friction upon the mucous surface of the vagina and stretching of its fibrous tissues, and that his lack of success in the treatment of female diseases has been mostly on account of imperfect instruments, will be apt to look upon the vagina-injector as he would upon a hidden treasure or sealed book.

Suppose the good doctor, who has a patient with prolapsus uteri, advises her to guard against constipation of the bowels; to wear no clothing suspended upon the hips; to manifest wisdom about physical movements; to be cautious about doing anything to press the abdominal viscera downward, and, in addition, prescribes appropriate medicines; yet, if he does not try to overcome the morbid contractility of the vagina, or remove the acquired fastening of the uterus down, caused by such contractility, he has neglected the one thing needful, and will fail in the desired result. Connecting with the vaginal deformity that foulness and inflammation may produce the anatomical fact that the womb is above, and somewhat supported by the vagina--the mucous membrane of the one being a continuation of that which lines the other—there ought to be a philosophical clearness upon this subject, about effect following cause, and what should be employed as prevention or remedy. The surgeon knows what must be done when muscular contraction is keeping any of the framework of the body in a luxated condition.

An illustrating case is: A few weeks since I was called upon to prescribe for a married lady who had been unsuccessfully treated a year, for falling of the womb and whites. On a digital examination I found the vagina in a rigid, contracted state, with the *os uteri* resting where the shortened vagina compelled it to rest.

The idea—call it crude if you choose—that entered my mind was, that the vagina had been so affected by poisonous secretions and inflammatory action, that it had become shrivelled and hardened, as an unclean piece of leather would be put upon a warm stove; and my treatment was not very dissimilar to that which I would give such a piece of leather, should it be worth saving. I charged the Vagina-Injector with some tepid soapsuds, and with persistent, cautious effort, and considerable suffering on the part of the patient, succeeded in entering the instrument. I brought into effectual service the "Movement-cure," and so relaxed or stretched the vagina that the uterus could return to its normal position.

I had so much confidence in the good result of my impressions and effort that I left the patient to use the instrument once a day, charged with soapsuds, immediately following with a medicated wash, for three days, when I again visited her, and, to my inquiry about how she felt, received this plain, yet pleasing reply: "I feel a great deal better. It seems as if something has given way; and what has been so long passing down has gone up into me. It does not hurt me any more to use the instrument."

I advised the lady to continue the daily use of the Vagina-Injector for two weeks longer; then to use it once or twice a week, according to the vaginal discharges, which had become very much diminished. At the end of four weeks there had been no return of the bearing down pains which had been troublesome for the year previous, and she, a happier woman, had resumed her former domestic duties.

Here it may not be out of place to state that No. 2 is for most cases, and that it is not too large for any adult female of medium size, unless she is malformed. Rigid vaginal contractions and morbid discharges should be taken as unmistakable indications for the use of the instrument. Often for the first introduction the patient needs assistance, as she would in any operation where united parts must be separated, and contracted ones stretched; after which, usually, there is no complaining that the tube is too large. For some ladies the tube may be a little longer than necessary, while the diameter is right. It will be evident after a few judicious exertions, connected with varied movements, whether four or six inches can be introduced into the body. Those using the Vagina-Injector, who believe that "practice makes perfect," and that "patience and perseverance overcometh many obstacles," will be more sure to receive the desired reward for their efforts.

I admit that there may be too much relaxation of the vaginal tissues, and a consequent prolapsus of the vagina, that would allow the womb to fall, which not only shows that the vagina has more to do in holding the uterus up or down, than the teachings of those who have much to say about the round and broad ligaments would imply; but, considering the nature of the derangement, and the structure of the organ displaced, that an adjuster like the Vagina-Injector, conveying within it a lubricator or tonic, is necessary.

Likewise, the pessary, which has had its friends and enemies, if not "its day and generation," and in several senses had its "ups and downs," if it has done more good than evil, it probably has performed it by expanding the vagina and extracting its disease-generating secretions.

The function of a muscle is to relax and contract, yet, if required to do either too much, it will refuse to discharge duty, or perform imperfectly. So, the vagina, not expanded enough, or, by the use of a pessary, distended for too long a time, will demonstrate that the laws of nature cannot be disregarded with impunity. There would be as much wisdom in overlooking the law of gravitation as the general

law of expansion and contraction. You all know how the thin tissues of the lungs are stretched, in pulmonary diseases, when the patients cough. The sufferers will often say that their cough is tearing their lungs into pieces, never thinking that without a cough the morbid deposits made in the air-cells would not be removed, and that such lacerated, raw cells, after being emptied, would collapse and grow together, if they were not occasionally forced open by the cough. It has long since been proved what inhalation or forced inspiration will do to an inactive lung.

Because a cough may be called a blessing, that does not declare that the breathing of a dusty, impure atmosphere is a remedy; because local relaxation is right, that does not militate against general relaxation or equalizing the circulation. Also, to continue the distention of the vagina as a remedy for a relaxed condition of the organ, by keeping within it a displacer of the surrounding parts, and a preventer of the necessary circulation of nature's repairing fluids, perhaps would be over-stretching "*similia similibus curantur.*"

Many good vaginal injections have proved abortive and been unjustly condemned, because the instruments professing to convey them have been deceptive; and what little may have reached the vagina has been neutralized by the foul secretions left within. Who can show, that by putting into a diseased vagina, between reasonable intervals, appropriate washes, with a dilating instrument, which, in an agreeable, positive manner, removes obstructions and makes deposits, that the Father of Physicians has not been wisely imitated or aided?

HEMORRHOIDS.

Read before the Brooklyn Academy of Eclectic Medicine, by H. C. COOPER, M. D., Brooklyn.

The frequent occurrence of hemorrhoids, and the occasional severity of the pain and distress which attend, have contributed an interesting subject of study for all classes and grades of medical practitioners. Its history is almost coeval with that of medical science, yet the treatment seems to be frequently unsuccessful. There exists a prevalent opinion that piles constitute so essentially a surgical disease that very little permanent benefit can be derived from purely medicinal agents. The disease is, therefore, suffered to continue through life in many instances, with an occasional resort to palliatives when the symptoms are aggravated. The patient prefers to endure the pain and discomfort, rather than submit to a disagreeable surgical operation, which he fears will be attended with torture and expose him to great peril.

Many physicians prescribe very carelessly for this disease, and it is probable that much of the belief in its incurability may be fairly ascribed to this circumstance. No one can doubt that the surgeon, who operates for this as a purely local affection, will occasionally cause disastrous results.

Hemorrhoids, or piles, are painful tumors, situated within or near the anus, resulting from the morbid dilatation of the veins distributed to the lower part of the bowel, and accompanied usually by some degree of impairment of the general health.

Various divisions are made by authors, as into blind, bleeding and mucous piles, permanent and accidental, &c. But the most natural and only practically useful distinction is into internal piles, or those which occur beneath the mucous membrane of the rectum, and external, or subcutaneous piles. The hemorrhoidal plexus of veins surrounds the lower border of the rectum, just beneath the mucous membrane, and its veinlets become engorged at times so as to form one or more prominences near the verge of the anus. When overdistended these small veins become ruptured, and their contents are effused into the areolar tissue. The blood thus extravasated may become coagulated into a fibro-areolar mass, and undergo partial organization, while the superimposed tissue becomes more or less

hypertrophied, from the continued stretching and pressure to which it is subjected.

The capillary vessels may enlarge and extend themselves, until the mass assumes the condition of an erectile tumor, and the membrane covering it is so delicate that the slightest irritation will cause hemorrhage.

Whatever is capable of obstructing the return of the blood from the hemorrhoidal veins, or of permanently relaxing the mucous and muscular tissues of the rectum, may be an efficient agent in the production of piles.

Active determination of blood to the parts, or passive congestion from obstruction to the returning venous flow, will produce the same turgidity, and equally result in the development of hemorrhoidal tumors.

The habit of sitting continuously for a length of time has always been described as one of the principal predisposing causes of piles. A little investigation will show that printers, and others who stand a long time at their work, are even more generally liable to this affection than persons of sedentary habits. Whenever people neglect to attend to the regular evacuation of their bowels; disregard the necessity of physical exercise; indulge habitually in rich food or stimulating beverages, and allow the pores of the skin to become clogged with impurities, hemorrhoids will most likely be produced in them.

Pressure upon the veins into which the hemorrhoidal plexus empties its blood, as of the enlarged uterus in pregnancy; the pressure of abdominal tumors; excessive tightness of the dress over the epigastric region; hardened fæces; obstruction of the portal circulation in chronic hepatic disease, are among the mechanical causes of piles. Protracted diarrhea, or dysentery, is apt to result in piles, by the relaxation and morbid alterations they produce in the mucous and fibrous tissues of the rectum.

The disease usually manifests itself to the patient suddenly, while straining at stool, when the fæces have become hardened, or after violent horseback exercise by persons unaccustomed to riding.

Some children are affected with piles at an early age, and seem to inherit an organization which predisposes them to this affection. Probably, in most instances of this kind, it will be found that some cause of local irritation—as, for instance, ascarides—has existed for a long time. Hemorrhoids do not usually occur till adult age, and are

probably always associated with an impaired condition of the vital forces, which must be obviated before they can be safely and effectively treated.

The course of treatment should, therefore, include such remedies as may be required to bring up the general condition to its normal standing, and, when this is done, it is always proper to attempt the cure of this affection, and no danger of metastasis of the disease to vital organs need be apprehended. The speedy development, or accession of disease of the lungs, &c., that sometimes attends the suppression of hemorrhoidal discharges, and the surgical removal of tumors about the anus is the consequence of regarding simply the local manifestation as the entire disease. Hence, the doctrine held by some that hemorrhoids delay the progress of disease in the internal organs is an error. When part of the body is diseased, the whole is diseased, and the sympathetic disturbance of the whole system will be in proportion to the degree of local suffering.

The division of piles into blind and bleeding depends upon the amount of vascular congestion. The pathological condition is essentially the same in both forms of the affection.

The hemorrhage that occurs in piles may be very slight, or it may be sufficient to weaken the patient, or even to destroy life directly.

Death may be the immediate result of surgical operations, when undertaken without regard to the general condition of the system, or may occur indirectly in consequence of the transferrence of the diseased action to the brain, heart or lungs. Properly speaking, however, piles cannot be regarded as a disorder liable to cause death.

When hemorrhoids are commencing, there will probably be felt some pain and uneasiness in the rectum, accompanied with itching about the anus and shooting pains in the loins and through the pelvis. Headache and vertigo, with flushes of heat, cold extremities, &c., may be complained of. There is languor, disinclination to exert mind or body, with irritable or peevish temper. Restlessness, loss of appetite, coated tongue, nausea, constipation, or other manifestations of disorder in the digestive functions may occur. Small, painful tumors will then be formed at the margin of the anus, or just within the rectum.

The agony which is occasioned by these protuberances is sometimes described by the patient as unendurable. These symptoms finally decline in severity, but exacerbations occur when the bowels become constipated, or after indulgence in good dinners, and sometimes without apparent cause.

When the tumors commence internally, their presence may remain unsuspected for a long time. The itching and discomfort which occur in the neighborhood of the anus are attributed to other causes. Eventually the tumors are felt to protrude during the act of defecation. The clothing becomes soiled by an albuminoid or sanguineous discharge from the rectum. More or less hemorrhage occurs at stool, and is sometimes so considerable as to weaken and alarm the patient. The tumors can be replaced by the fingers at first, but the continued pressure upon the sphincter causes it finally to relax, and the piles cannot be retained after they are put back. They consequently remain protruded, and being caught by the sphincter become strangulated. The irritation which is thus created renders them excessively sensitive, and they can no longer bear to be touched. The attempt to evacuate the bowel causes great suffering, and is deferred as long as possible. Constipation becomes habitual, and the abuse of cathartic medicines, or their injudicious selection, increases the difficulty. The neighboring organs become involved. The bladder becomes irritated or inflamed, and retention or strangury may occur. Seminal discharges result from irritation of the seminal vesicles. The uterus and vagina become affected in females, and leucorrhea is one of the accompanying symptoms of this disorder. The hepatic functions are deranged, and give rise to symptoms of indigestion and dyspepsia. The constant annoyance, frequent tenesmus and attacks of hemorrhage increase the nervous irritability. The spirits are depressed. The countenance becomes sallow. The skin is dry and harsh, and the hair becomes stiff and inelastic. Head-ache and back-ache are common. The disease sometimes lasts for years without giving rise to gastric disorder or external evidence of deranged health. Examination will disclose one or more tumors; or, if internal, an effort of the patient to press down will make them apparent. When they are high up a speculum may be required before they can be fully seen. They may be single or multiple, and vary in size from that of a pea to the dimensions of a walnut, or even to a much larger size. They are very dissimilar in shape. Sometimes they are broad at the base; at others they depend from narrow pedicles. Their location is never more than one or two inches above the anus, and they are commonly found in close proximity to the orifice of the rectum. When internal, their surface is usually red and granular, and they are easily caused to bleed freely. Sometimes they are found ulcerated. When protruded, their color becomes pinkish.

External piles present themselves as one or more excrescences around the margin of the anus. They feel soft and compressible, and have a livid appearance generally. At other times they have a yellowish color and doughy feel. Sometimes they are found to be exceedingly flabby and irregular in shape. When unirritated they may exist without any pain or constitutional disturbance, but are liable to become congested or inflamed, and are then extremely sensitive to the touch and excite considerable fever.

The treatment of piles consists in subduing local inflammation, stimulating the enfeebled powers of the sacro-lumbar nerves, and restoring healthy action of the secernent organs. The first indication is to disgorge the bowels, and relieve the portal system by an efficient, unirritating cathartic. In most cases it is proper, according to my experience, to administer a full dose of the Anti-bilious physic. That which I use is composed of senna, jalap and spearmint. The formula in the Eclectic Dispensatory is probably equally good. In order to effect a good cutaneous action, a warm bath (92° to 98° F.) is directed; and, after immersion for 10 or 15 minutes, is followed by a cold shower, or sponge bath, and brisk friction.

In most instances these preparatory measures will have an excellent effect on the patient's mental and physical condition. Copious ablutions of the affected parts with soap and water should be employed daily, and half a pint of cold water injected after each alvine discharge. By these means the patient is greatly relieved, and feels animated and encouraged. When the inflammation is very severe, the patient is kept in bed, and emollient anodyne poultices of elm and Stramonium ordered to be applied for three or four hours, or fomentations with hops, &c., used.

A mixture of sulphur, cream of tartar, sulphate of magnesia and carbonate of magnesia, given in doses of one or two teaspoonfuls, in water, sweetened, and taken before breakfast every morning, assures a soft, semi-fluid condition of the fæces. When the inflammation is subdued, astringent anodyne applications may be used. The digestive functions should be toned up by vegetable infusions, and care taken to relieve any constitutional derangement that may exist by appropriate measures. If there is any suspicion of syphilitic taint, Iodide of Potash must be given in compound Stillingia syrup. The patient must avoid applying irritating substances after defecation, to replace the tumors when prolapsed, and keep the parts carefully cleansed. Manilla paper is recommended for closet purposes.

In a very large majority of cases, the following pills will be found to cure the disease, or so relieve the symptoms, that an occasional recurrence to their use keeps the patient perfectly comfortable:

℞	Aloes Socotorina,	grs. xij
	Alc. Ext. Nux Vomica,	grs. vj
	Ext. Hyoscyami,	grs. xviij

M.—Div. in pil. No. xij. S. one pill two or three times, daily.

Sometimes it is necessary to add gr. j or ij Sulph. Quinine to each pill. If there is great deficiency of nervous power, the proportion of wine may be slightly increased, and a half or two-thirds grain capsicum added. When the bowels are relaxed:

℞	Ferri Sulph.,	grs. xij
	Aloes Socot.,	grs. vj
	Alc. Ext. Nucis Vom.,	grs. jv
	Ext. Conii,	grs. xviij

Ft. pul. xij.

It may be necessary in some cases to proceed to an operation. Where small external tumors exist, they are best removed with uvula scissors, and the surface touched with caustic. When the tumors present a broad base and florid surface, strong nitric acid may be applied, and the excess immediately neutralized by an alkaline solution. When they are indurated and projecting, the ligature is preferable. When the hemorrhage is excessive, I have employed solution of alum, ʒ j to aq. ℥ viij, solution of tannin, &c., to prevent and restrain moderate hemorrhage, a suppository of oxide of zinc ʒ ss, ext. belladonna gr. xij, butyrum cocoæ ℥ ss, divide in suppository No. viij, one to be used at night, or when the bowel is prolapsed and congested. Oil of erigeron has been recommended as a local application, to restrain hemorrhage, mixed with three or four parts of olive or castor oil, or with stramonium ointment.

The use of aloes in this disease is at variance with the prevailing opinion of the profession, but in the above combination it has proved uniformly beneficial; succeeding, in some cases, after various other remedies had failed. The *modus operandi* of the above pill is easily seen. The aloes has a specific effect upon the rectum; the nux vomica stimulates the dormant powers of the spinal nerves, and the hyoscyamus subdues irritation, while it promotes the fæcal discharges. It is proper for me to disclaim any originality in this prescription of aloes; it is one which I have found in my personal experience to produce the most happy results, although I do not remember to have seen it in print. I regret being unable to give the proper credit to its author. Collinsonia has been vaunted as a specific, but the tincture has proved useless in my practice.

TALIPES, OR CLUB FOOT.

Read at the semi-annual meeting of the Eclectic Medical Society of the State of New York, by EDWIN FREEMAN, M. D., Professor of Anatomy in the Eclectic Medical College of the city of New York.

Certain deformities of the foot have received special description under the name of Talipes. Those deformities may be congenital or acquired. The latter kind may be the sequel of some exhausting disease or nervous affection, producing a paralytic condition of nerves distributed to certain groups or a group of muscles, and an irritable condition of the nerves sent to an antagonizing group. The irritable muscles not being antagonized draw the foot powerfully away from its natural position, changing the relation of its parts, and sometimes giving it a form but little resembling that it naturally has. The contraction of the muscles is permanent, and the fasciæ become thickened and shortened as the person increases in years. The bones, losing their normal relation to each other, accustom themselves to the new conditions as much as possible, change their articular surfaces by making new ones and obliterating old ones; and by elongating some of their ligaments and shortening others. Nature tries to make as good a substitute as possible upon the new and unnatural surface trodden upon, for the soft and cushion-like sole of the foot. But changes, produced by a want of balance of the forces acting on the foot, are followed by other changes, and still further departures from the natural condition, unless the balance of forces is restored, and all antagonizing elements overpowered or destroyed.

The heel may be powerfully drawn up by the action of the gastronemius and soleus, the flexor longus pollicis and flexor longus digitorum muscles, so that the body will rest on the toes or extremities of the metatarsal bones, producing that deformity called talipes equinus. There may be, or may not be, a want of power in the extensor longus digitorum and proprius pollicis and peroneus tertius muscles. The person has no power to put his heel to the ground. The peronei muscles and tibialis posticus may also be at fault, and contracting strongly, change the direction downwards of the anterior row of tarsal bones, thus increasing the deformity. These conditions may be produced in children by the irritation of teething, worms, wounds in the calf, scrofulous disease in the ankle-joint, or substance of the posterior muscles, or tendon, or it may arise spontaneously.

The true method of cure is, I think, such as recommended by Dr. R. Barwell, of England, viz., stimulate by frictions, electricity and movements of the limb, the muscles that are more or less paralyzed, and make up for a deficiency of power by supplying artificial muscles, to antagonize those that contract so strongly. He thinks that that is all that is sufficient. But while it may be in many cases, I think division of tendons of shortened muscles properly performed will hasten the cure and also perfect it.

In this form of the deformity, the tendo Achillis is the one to be divided. A small, sharp tenotome is to be passed under the tendon from one side to the other, puncturing the skin only on one side, with flat side toward the tendon, and when in position, turning the edge against it, and by a slight motion, while the tendon is made tense by an assistant, severing its fibres. The foot is then to be put on a splint for a few days. and not too much extended, until the process of reparation is well begun. Extension may then be carried on by a gradual process, by any apparatus that will do it most perfectly. Those are all modifications in various ways of Scarpa's shoe, and often answer every purpose.

Dr. Barwell has proposed and successfully used artificial muscles, made of rubber, to supply the want of power in the front of the leg. They are attached to a piece of tin like a small splint, held in place by adhesive plaster, which is wrapped in successive layers around the leg. The lower extremity, or insertion of the muscle, is fastened to a link firmly connected with similar plasters surrounding the foot. By this method all the natural movements of the leg are unrestrained, allowing of development of weak muscles, and freedom of movement, which very much hastens recovery.

Another deformity, called talipes varus, consists essentially of a turning-in of the foot, so that the person walks on the outer edge, or on the dorsum of the foot.

There is, first, elevation of the heel as in the first instance; second, a contraction of the tibialis anticus and posticus muscles, drawing up the inner edge of the foot, and diminished power of those antagonizing them, as the peronei and extensors; third, in cases of long standing, shortening of the fascia and always much malposition of the bones of the tarsus. This form is very apt to be congenital, in one or both feet, and very bad; it is the most common of all. It may be produced by position *in utero*, but its cause cannot as yet be accurately determined, although the mother will attribute it to some impres-

sion during the period of pregnancy. To relieve this deformity, the tendo Achillis and tibialis and anticus, and posticus, have to be cut, or either one or two of them, and other resistance overcome by orthopædic apparatus, or by the application of muscles to represent the peronei on the opposite side of the foot, which, by opposing those in contraction and assisting the natural ones, gradually overcome the malposition. It will require considerable time and much care, with any form of apparatus, until the natural direction and shape are restored.

Talipes valgus consists in an elevation of the outer side of the foot, so that the person walks on the inner side of it. There is a yielding and falling of the arch of the foot, so that the os scaphoides projects and touches the ground on its inner and under surface. There is a weakness of action of the tibialis posticus, and sometimes anticus and flexor longus digitorum and pollicis muscles, and powerful action and shortening of the peroneus tertuis, longus and brevis, and extensor longus digitorum muscles. These latter, not being opposed, draw the outer side of the foot up, and, the supports of the tarsus and the arch being weakened, this deformity results. This may be, and is, frequently, congenital, owing to position in utero; or, it may be the result of nervous irritations, wounds, rheumatism, &c., as in the other forms.

It is corrected by severing the tendons of the muscles last mentioned, subcutaneously, and applying muscles to represent those that are weak. The tibialis posticus is especially to be supplied, and sometimes the anticus; and great care is necessary in adjusting the counterbalancing forces properly, and applying them in the right position and direction.

The fourth form of the simple varieties of deformity is talipes calcaneus. In this form, which is generally congenital, there is no loss of power of the gastronemius and soleus muscles, but marked contraction of the tibialis anticus, extensor longus digitorum, and proprius pollicis, and peroneus tertius muscles. The dorsum of the foot is bent to a small angle with the leg, and no part of the foot touches the ground but the heel. The tendons of the last-named muscles must be carefully severed, subcutaneously, and the antagonizing force applied, to bring the anterior part of the foot to the ground and enable the patient to raise the heel. A shoe may be applied for that purpose, or muscles to assist the sural muscles, whichever seems most useful in accomplishing the purpose.

There is a variety of this form called by some talipes cavus, in which there is moderate action of the anterior muscles, weak action of the sural muscles, and strong action of the peroneus longus, which draws down the front part of the foot, while at the same time the heel droops and the patient walks on the posterior part of the heel, the prominence of the heel being quite absent, and the hollow of the foot being quite deep. In this case the peroneus may need to be cut, but additional force must be given to the action of the sural muscles and anterior tibial and peroneus tertius muscles, by adding artificial ones, as well as by the application of the galvanic battery and the use of such other measures as will best accomplish that end. There are other deformities in which these simple forms are mixed, and hence are called compound forms. They are talipes equino varus, talipes equino valgus and talipes calcaneo valgus. They are produced by a combination of the causes producing the simple forms, and have to be studied well in order to adapt the proper and necessary treatment.

Sometimes a deformity will be met with, in which the foot from inflammation about the ankle-joint will, on recovery, be kept at right angles with the leg, without the ability to change that relation. This is a very troublesome deformity, occasioning lameness the same as the others. The peronei, anterior tibial and common extensor, and perhaps other muscles, will be found rigid, and these and all such must be divided. Flexion and extension of the foot should be practiced several times a day, and in this way it will be gradually corrected. Where there is, in any of these deformities, marked shortening and contraction of the deep fascia, as the plantar fascia, it must be severed at the most available point, before the deformity can be overcome. Pedal deformities are very common, and where it is possible should be begun to be counteracted in infancy, where it is congenital, before the bones of the tarsus become ossified, or become fixed and rigid in one position. In other cases it needs a great deal of patience and diligent perseverance to correct the unnatural contractions, break up adhesions, and support the foot in the desired position. I have had under my care for some time a child—a patient of Dr. D. E. Smith, of Brooklyn, N. Y. He had congenital talipes varus complicated with equinus (double). The feet were twisted inward with the inner borders upward, and the heel strongly contracted. At the age of one year, he was trying to stand, but the soles of the feet were turned upward and inward, and the body

rested upon their dorsal surfaces. I severed the tendo Achillis and tibialis anticus tendon of both feet subcutaneously, as they seemed most tense, and offered most resistance to the return of the feet to their natural position. There seemed to be but little tension of the tibialis posticus muscles. The feet could be readily placed in a natural position without using any force. The action of the tibialis posticus seemed to be only irregular from want of proper balancing by the peronei, which were evidently very weak. I used at first a splint to the limbs, until the tendons had begun to heal, and then applied a modification of Scarpa's shoe, with gradual reduction of the feet to the natural position. After wearing that awhile, I applied rubber muscles and a splint for attachment of the muscle over the region of the peroneus longus and brevis, the splint being secured by adhesive plaster, cut in its length, and applied from the knee to the ankle. It was re-strapped weekly, and the limbs well rubbed, and the muscles stimulated by electricity. The method was that already described. The muscles were attached to the foot by plaster, in which a link was firmly stitched. The tendon representing the peroneus brevis was passed through an eyelet attached to the lower end of the splint over the malcolus. To-day the child's feet are perfect and straight when he stands without any apparatus on them, and he rests fairly on the soles. When he runs or walks fast there is some deviation, not constant, it being first one foot and then the other, as he has not yet complete control of the muscles. A very little more care will entirely correct that. By this method the child is relieved from wearing any heavy and clumsy apparatus, while the limbs have free play, and become developed with the rest of the body. This is very important, for there are always some weak or partially paralyzed muscles, to which strength and tone must be given, while their work of antagonizing the other muscles is done by the rubber ones.

PROGRESSIVE LOCOMOTOR ATAXIA.

Read before the Brooklyn Academy of Eclectic Medicine, by HENRY C. COOPER, M. D.

This is a disease which has been until recently confounded with other forms of paralysis. Its peculiar feature is a failure of the power of coördinating muscular movements, or of so combining the action of muscles as to effect the purpose designed by the will. It differs from ordinary paraplegia in not having the powers of voluntary action destroyed. An individual affected with ataxia may be unable to walk or stand without assistance, while he can, when seated, kick out his feet almost as vigorously as he was able to do when his health was unimpaired. The disease was formerly described as tabes dorsalis, and depends upon an atrophy of the posterior columns of the spinal marrow.

Both sexes are liable to the affection; but it occurs more frequently in males at about the middle period of life.

It probably occurs in females oftener than is supposed; but, from the fastidious delicacy of the sex, the examination of the case may be less thorough, and the diagnosis consequently less exact.

It approaches insidiously, and may be preceded for years by evidences of spinal irritation. There will usually be an increase of venereal excitement, with deficiency of power in the sexual organs. In the male, seminal emissions are apt to occur, with inability to complete the sexual act. Other symptoms, which may be noticed, are weakness in the back and limbs, a want of power to erect the body without pain after stooping over, and a wearied condition of the back after standing a long time. Fugitive darting pains of great intensity occur in the lower limbs. These pains come on suddenly, are repeated with great rapidity a short time, and then disappear. Sometimes they are not severe, but ordinarily the pain is very sharp. They appear to pass with the rapidity of lightening along the course of nerves, or to manifest themselves in certain points upon the surface. They are irregular as to locality affected and time of occurrence; remaining absent for weeks or months, and then suddenly reccurring in a different part.

They are compared, by patients, to severe galvanic shocks, or to a stroke of lightening. As the disease advances, they commonly increase in the frequency of their occurrence. The muscular sensa-

tions are altered, and the soles of the feet seem to be separated from the ground by the interposition of a soft, elastic substance.

In walking, the patient feels as if he was stepping upon wool, or as if a cushion or bag filled with water was between the feet and the ground, or the floor is said to feel soft and shaking. He stumbles often, and the gait becomes uncertain and tottering.

This condition increases till he is unable to walk without assistance. The attention of the individual is strongly directed to the motions of his feet in walking, and when his eyes are closed he is unable to stand. When he attempts to walk across the floor, he reels and staggers, seizes objects near him to support himself, or continues onward until brought up against the wall of the apartment. The limbs in walking are jerked spasmodically upward and forward, and then brought forcibly to the ground. The feet rise unequally, and the knees give way from before backwards. All the movements of the voluntary muscles are hasty and imperfect. As the disease progresses the upper limbs become involved, and the patient cannot button his clothing, or take his food without assistance.

The movements suggest the idea of an automaton, impelled by wires or strings. The sensibility is altered, anæsthesia usually exists, but for a time there is occasionally an exaltation of sensation.

Sometimes the sense of touch remains perfect, or nearly so, while the ability to feel pain is lost. In this condition a patient may be punctured deeply by a pin or needle in some portions of his flesh, without being conscious of it. Paralysis may occur in a limb, or a single muscle, which disappears after a brief period. This transient paralysis is apt to affect a single finger, and may exist one day well marked, and be entirely removed the next. The patient is conscious of a sense of muscular contraction, and sometimes complains of a tickling sensation. The sexual powers become enfeebled or lost, after a period of undue excitability. The bladder is at first irritable, and micturition is frequent. Subsequently the sphincter becomes relaxed and the urine dribbles away, or is passed unconsciously in bed. The abdominal muscles become relaxed. Pains are occasionally felt in the abdomen and chest. The cerebral nerves become involved, and the function of vision is impaired. The conjunctiva is liable to be inflamed readily. Ptosis occurs, from inability of the patient to control the muscles of the lid.

Strabismus, either internal or external, results from deficiency on the third or sixth pair of cerebral nerves, and when external, double

vision comes on from the rays of light not being received upon corresponding portions of the retina. These affections of the eye are variable in severity, but when the optic nerve becomes affected amaurosis results, which is usually permanent. The ophthalmoscope reveals an atrophied condition of the optic disk. Occasionally, deafness occurs, usually on one side. Dyspnœa and difficulty of swallowing are sometimes present, and there is alteration in the sound of the voice. One side of the body is usually more affected than the other, and, as it is the weakest, the left side is that in which the disease appears most developed.

The progress of this affection is very slow. It may last for ten or twenty years, with a gradual increase in the severity of the symptoms. It is thought that recovery is extremely rare. In an advanced stage of the disease the weakness is extreme, and the patient is unable to leave his bed. Post-mortem examinations have established the pathological condition beyond doubt. The cerebellum has been found healthy. The lesion constantly observed is atrophy, and grey degeneration of the posterior columns of the spinal cord, with hypertrophy of the connective tissue. This condition extends to the posterior roots of the spinal nerves, and lesions are also found in the grey substance of the cord.

CAUSES.

Whatever exhausts the powers of the nervous system may occasion this disease, a long-continued exposure to inclement weather; cold and damp, with great bodily fatigue. Continued venereal excesses, masturbation, &c., are probably more frequent causes. The prognosis is usually regarded as extremely unfavorable. The treatment prescribed by most medical authors is empirical and unsatisfactory. The cause is usually removed long before the disease has manifested itself, and the diet and regimen are generally pretty well understood by the patient himself. When this is not the case, the patient must be directed to rise early, wash the chest, back and sexual organs with cold water; use the shower bath frequently; avoid stimulating drinks, spices, fat meats, pastry and indigestible substances; keep down sexual excitement by sleeping on a hard bed and rising early; occupy himself with moderate labor or gymnastic exercise in the open air.

The remedies applicable to this condition are preparations of phosphorus and iron, and the judicious employment of galvanism. Various articles have been recommended, which have not produced any permanent benefit, and which it is unnecessary to enumerate.

The following notes, of a case which has recently occurred in my practice, may be of interest:

T. W., aged 46, born in England, married 20 years ago to his present wife. When he was obliged to give up work, he was employed as night watchman by one of the city railroad companies. His wife states that he resided in the West Indies seven years, and, for the last three years of his residence there, suffered a great deal from bilious fever. Since that time he has never been well. When he left the West Indies, he lived four years in England, during which time he married. While there his health was poor, but he did not employ a physician. He then came to this country, and had an attack of bilious fever every August, till ten years ago. Since then a medical man from his own country has attended him almost constantly, but he had no decided febrile attack until last summer. His medical attendant ascribed his sufferings to a "sluggish condition of the liver." In August last he was confined to his bed for a week; then resumed work, but, at the end of a fortnight, had to give it up, and has been unable to do any work since. His disease was pronounced by his physician to be "dumb ague."

Six years ago he met with an injury by knocking his shoulder against a railroad car while assisting in placing it on the track. He remained at work until evening; but was obliged, when he got home, to send for his medical adviser. This gentleman told him "some of the sinews were displaced," and bandaged up his arm. He is quite certain his shoulder was not dislocated, nor any bones broken. For a long time previous he had found it difficult to raise himself up after stooping, and he often walked with his body bent forward on account of the pain it caused him to straighten himself. He also complained all the time of stiffness at the back of the neck, and a sense of swelling at that part. He has always had numbness and stiffness in his right arm since the accident referred to, and has used various kinds of liniment for it without benefit. Some of these were recommended by his physician, and others he tried on his own responsibility. His appetite is always disordered, and his tongue constantly coated. He is much troubled with dyspepsia and constipation, which he relieves by taking pills. An examination of the shoulder injured shows no deformity. The muscles of the arm feel soft, and he finds it difficult to raise even moderate weights in the right hand without assisting it by the left. He had given up all hope of getting well. He suffered from neuralgia of the face, and applied

to his physician to know if the extraction of two carious teeth would be likely to relieve the pain. He was referred to me, and I was requested to prescribe for him.

Dec. 5, 1868. The symptoms observed at this time were, great feebleness and emaciation; sallow countenance, expressive of anxiety and distress; eyes staring; pupils dilated; movements of the iris on exposure to light slow and imperfect; tongue covered with yellowish fur; abdomen distended; bowels constipated; no tenderness over hypochondriac region; no evidence of hypertrophy of the liver; urine ammoniacal and loaded with sediment of a dingy, yellow color; he walks with a staggering gait, and finds it difficult to take a step without assistance; he refers his disease to hardship and exposure in early life, and considers his constitution worn out; has a good frame, is of medium hight, and appears built for a strong man.

I prescribed the following:

℞	Podophyllin,	grs. iij
	Leptandrin,	grs. vj
	Dioscorein,	grs. iv
M	Potassæ Bitart.,	grs. xij

Div. in chart. No. xij. One powder to be taken morning and evening.

After two days, he took one powder daily, and on the fifth day discontinued taking them altogether, by my direction; his wife having informed me that they were purging him excessively. I ascertained the prescription of his former physician, and found that the pills which he had been taking contained croton oil, and that they did *not* produce hypercatharsis.

On the 16th of December, I saw him at his house, by appointment, for the first time. He was so weak as to be unable to raise himself in bed, but his spirits were more buoyant, and he stated that he felt better than he had been for a long time, but was unable to account for his extraordinary weakness. He felt his stomach to be easier, and the abdominal distension was removed. His tongue was clean and countenance bright; but the eye-balls were continually in motion, vibrating rapidly from side to side; he complained of deafness in the right ear. His wife says he has for a long time thrown out his arms spasmodically in his sleep, and she has occasionally received a smart blow. I prescribed good diet; oysters occasionally; beef tea, &c., and ordered:

℞ Syr. Ferri Phosphat., Quinia et Strych. gtt. xx. Three times a day.

℞ Syr. Rhei. et Potassa Co., ℥ ij. Teaspoonful doses, when needed to keep bowels open.

The bowels have been acted on very readily since this treatment commenced, but are inclined to be constipated when medicine is discontinued.

December 21. His condition has improved so much that he can now sit up in bed; vibratory motion of eye-balls less marked; vision better; deafness has disappeared; stiffness complained of in right arm, and pain in right thigh. I ordered a liniment of chloroform and aconite to the seat of pain, and continued medicine, diet, &c.

December 26. Complaints of chilly sensations every day at irregular hours, with blueness of finger nails and flatulence of the bowels; tongue clean; face animated; eyes more steady; urine has lost its offensive odor and become much clearer; raises himself in bed without assistance, for the first time since treatment commenced; sense of weight and stiffness in the back part of the neck, which has existed for a long time. Ordered bathing with lukewarm water and spirits, carefully avoiding unnecessary exposure.

℞	Quiniæ sulph.,	ʒ j
	Acid Tannic,	grs. xv
	Syr. Zingiberis,	℥ ij
M	Aq. Menth. pip.,	℥ ij

S. Dose, tablespoonful three times a day.

January 2, 1869. Strength increasing daily, and condition greatly improved on the whole; but countenance is sallow, and chilly sensations come on every day, in no definite order; sometimes occurring in the morning, at others in the evening; bowels more costive.

℞	Tr. Podophylli,	ʒ vj
	Tr. Leptandræ,	ʒ xij
	Syr. Rhei et Potassæ Com.,	ʒ ii

Tablespoonful at a dose daily, when bowels do not move naturally.

January 4. Chilliness continues, but in less degree. Prescribed pills of quinine and salacine in place of the mixture.

January 12. Pills did not seem to act as efficiently as the mixture. For a few days the patient discontinued all medicine. The stomach is bloated and food disgusts him. The eyeballs oscillate with more rapidity, and give him a somewhat frightful appearance. The nervous system greatly depressed; he gets angry and peevish without just cause; demands that his family shall go to bed at an unusually

early hour (about 7 P. M.), and accuses his wife of being unwilling to spend money for his medicine, and his entire family of being indifferent to his welfare; is weaker than he was a few days ago, but considers his condition, physically, much better than when I first saw him; has increased in weight remarkably; his wife is not able to raise his shoulders in bed, as she could easily do when treatment was commenced; countenance and prolabia pale; pulse quick and feeble.

℞	Quiniæ sulph.,	ʒ j
	Tr. Ferri Chloridi,	℥ ss
	Syr. Zinziberis;	℥ ij
	Aq. Menth. pip.,	℥ ij
	Aq. Fontana qs. ute fiat Mist.,	℥ viij

Tablespoonful three times a day.

℞ Pilul. Assafœtidæ, S. C., grs. iv, with each dose of Mixture.

January 28. He has continued to improve steadily for some time, and is able to remain out of bed a part of each day, retiring when fatigued. On two or three occasions when he got out of medicine, he suffered from flatulence, and felt weaker. The appetite is improving, and he says his stomach is stronger than it has been for months. When he first got out of bed he walked with his body bent forward and stepped rapidly, as if about to fall, and just able to advance his foot in time to prevent it. He now walks with his body erect, but has a tottering gait, and requires occasional assistance. His feet are thrown forward with irregular jerking movements. They are sometimes raised much higher than necessary, and strike the ground forcibly, as if stamping. When his attention is diverted from watching his feet, he is not able to get along at all. When he closes his eyes he cannot stand. The grasp of his hand is feeble, and he seizes articles with the palms upwards, as if apprehensive of being unable to retain them in his hand. Occasionally, in taking hold of anything, his hand clutches it with spasmodic force. His eyes are now almost always steady, and his vision is better. He thinks he can walk better in his bedroom, which is partially darkened, than in a strong light. His hearing is perfect; still complains of stiffness in the right arm, and particularly in the forearm; regards this as the result of the injury to his shoulder; has a very painful sensation in the center of the palm of the right hand, and says he has occasionally noticed darting pains through his limbs. I now discontinued the assafœtida, which had been substituted for the quinine mixture.

℞	Syr. Phosphat Ferri Quin. et Strych.,	ʒ iij
	Quiniæ Sulph.,	grs. v
	Tr. Ferri Chloride,	gttæ. xv
	Tr. Zingiberis,	ʒ v
	Syr. Simplicis,	℥ iij
	Aq. Maltha, V.	v
	Aq. Fontana,	aa ℥ ij.

Tablespoonful 3 times a day.

Mixture. Podophylli, Leptand. and Syr. Rhei. et Pot. Co., in teaspoonful doses every morning.

Jan. 30. Improvement rapid; gait steadier in walking, and most symptoms relieved. Appetite poor, and stiffness of arm increased. Bowels do not operate without the purgative medicine, but are kept regulated by ʒ j doses daily. Continued the medicine, and applied large blistering plaster between the shoulders.

Feb. 2. The patient walked steadily this morning, and thought if I did not get to the house he would be able to go to my office. At 2 P. M. was less steady; nervous system very excitable, and temper easily irritated. His wife thinks when my visit is delayed beyond the usual time, that he walks with more difficulty. This morning he felt some nausea, and I first learned that he has at intervals for years vomited his food soon after taking his meals. He has always been a temperate man. Shortly after my last visit he ejected from his mouth a quantity of frothy mucus. This had not occurred previously since I began to treat him. I ordered the quinine mixture twice a day instead of three times; also to take occasionally four grain doses of subnitrate bismuth, in pills.

February 8. Came to my office, a distance of about 3 miles, riding in the cars most of the way; he walks pretty well with assistance; he said he walked 10 miles on Sunday last. Nervous system excitable; pain in chest and shoulders, and along right arm; little finger of right hand completely paralyzed; cannot flex it sufficiently to retain a sponge in his hand by its aid. He has not been able for years to put on his coat, or raise his right arm to his head, unless assisted by his left hand. The urine was scanty and high-colored; scalds him when voided; vision imperfect. I passed a current of electricity along upper extremity of right side, applying the positive pole to the back of the neck. I subsequently applied one pole of the battery to the point of emergence of the facial nerve and to one temple. When told to put on his coat, he said he would try to, and he did it with ease. He appeared so elated that he kept rolling and unrolling a tippet he wore

about his neck, as if to assure himself of his power to do so. I ordered the treatment to be continued, with addition of 30 drops tincture of agrimony twice a day.

February 16. Eyes had been stronger and vision better since last visit; can bend little finger so as to touch palm of hand with it; walks much better; gains flesh and strength daily; appetite pretty good; tongue coated. The galvanic current was applied.

February 20. Walked to my office from his house, a distance of over two and a half miles. I applied the direct current as before, and then an interrupted current through the arms and chest.

March 2. Sees better than he had done for a long time previous to treatment; appetite poor; tongue coated; voice weak; speaks low; muscles of arm improving in volume and power rapidly; pain in lumbar region, and stiffness in the back. I applied electricity as before, and ordered:

Bromide of Potassium,	ʒ ij
Tr. Valerian,	℥ j
Syrup Wild Cherry,	℥ iij
Tr. Aurant, cort.,	ʒ i

Dose, tablespoonful twice a day.

March 6. Symptoms reported to be about the same, except general increase of strength. He resumed his work a week ago Saturday, I sent him the following liniment:

℞	Ol. Stillingiæ,	
	Ol. Lobeliæ,	aa ℥ ss
	Ol. Cajeputi,	ʒ ij
	Alcoholis,	℥ iss

Mix. Apply to spine twice a day, till it brings out eruption; then discontinue and apply at another part.

March 8. Says his health is better than he has known it for many years; his pain in the back is entirely cured, although he had it before he went to the West Indies. For six years he has been unable to lift his dinner kettle to a level with his head, at any time, by his right hand, and his arm hung by his side in walking as if paralyzed; he could not put on his coat without assistance, or raise his right hand without using the left to aid it. He is now able to lift a bucket full of water with ease, and does so daily in watering horses. The muscles of his arm are becoming firm and full; his tongue is clean, his bowels regular, and his appetite "excellent." His wife says his appearance is better than it has been for years; his voice is full in tone; he holds out his hands steadily, and appears quite well, except

an undue excitability of his nervous system. Advised to continue the use of electricity for a few weeks, and keep his bowels regular. He has discontinued all medicine but the liniment, and an occasional dose of podophyllin, leptandrin, and neutralizing cordial, which he seems to regard as an invaluable purgative compound.

THE MAMMARY GLAND AND THE MILK.

By J. M. F. BROWNE, M. D., LL. D., Professor of Physiology and Pathology in the Eclectic Medical College of New York.

"The mammæ or breasts are two large hemispherical eminences situated towards the lateral aspect of the pectoral region." Their outer surface is convex, and presents, a little below the centre of the convexity, a small, brownish, conoidal prominence, called the mammilla or nipple. Their base is somewhat elliptical, the long diameter pointing upwards and outwards towards the axilla. They differ slightly in size, the left being generally a little larger than the right. They exist in both sexes, but attain to a much greater size in the female, especially during pregnancy and lactation. In the male they are usually in a rudimentary state, but may be excited to growth by frequent drawing of the nipple, or by atrophy or removal of the testes. Before the age of puberty they are but little developed. About that period, however, they begin to grow; and around the central part of each a rose-colored circle makes its appearance. This circle, which is called the *areola*, *aureola* or *aureole*, is subject to changes of color during the period of gestation; and these changes are of great importance in deciding as to a case of suspected pregnancy. About the second month of fœtation the aureole loses its virgin tint, increases its area, and assumes a brownish hue which deepens in color as gestation advances. It is furnished with a considerable number of sebaceous glands, which secrete an unctuous fluid for the protection of the nipple against the action of the saliva of the nursing infant. These glands, which were called by Sir Astley Cooper "the tubercles of the areola," are increased in size during lactation, and have the appearance of pimples projecting from the skin.

Within the mammæ are situated the *glandulæ lactiferæ* or the glands that secrete the milk. They are conglomerate in structure, and closely resemble the pancreas, salivary and lachrymal glands. They consist of numerous lobes, which are themselves composed of lobules, connected together by areolar tissue, bloodvessels and ducts. The lobules consist of a cluster of rounded vesicles, whose size is "that of a hole pricked in paper by the point of a very fine pin."

These vesicles are the ultimate terminations of the lactiferous ducts, and are so minute that they have to be distended by some injected fluid before they are visible to the naked eye. The lactiferous ducts, usually termed *tubuli lactiferi*, or *tubuli galactophori*, are the excretory ducts of the mammary glands. Their number varies from twelve to twenty. They commence by small openings at the summit of the nipple, pass inwards parallel with each other, and dilate, beneath the aureole, into flask-like pouches, called *ampullæ*, which serve as reservoirs for the milk. Beyond the ampullæ they give of numerous branches which ramify everywhere throughout the gland to the minutest cæcal vesicles. These ducts and vesicles are all lined by a layer of epithelium; of the conoidal variety in the larger ducts, of the tesselated variety in the smaller ducts and vesicles.

The mammary gland may be detected at an early period of fœtal existence. It originates in the fourth or fifth month as a papillary projection of the mucous layer of the epidermis. Its vascularity and redness make it easily distinguishable from the parts that surround it. "At first it presents no difference in the male and female; and it is not until the period of puberty that any striking change manifests itself." At puberty, however, enlargement in the gland of the female commences; and about the age of eighteen it has attained its full ante-lactation size. During the period of gestation it is supplied with a largely-increased quantity of blood; "and this determination, which often commences early, produces a feeling of distension and tenderness," and is a valuable sign of incipient pregnancy. At this time, as previously stated, the aureole enlarges its area, and becomes darker in color and thicker in substance; its papillæ or tubercles become more prominent and their peculiar secretion is increased. "The vascularity of the gland continues to increase during pregnancy; and at the time of parturition, its lobulated character can be distinctly felt. The vesicles are not, however, developed sufficiently for injection until lactation has commenced. After the cessation of the catamenia from age, so that pregnancy is no longer possible, the lactiferous ducts continue open, but the milk-follicles are incapable of receiving injection. The substance of the glandules gradually disappears, so that in old age only portions of the ducts remain, which are usually loaded with mucus; but the place of the glandules is commonly filled up by adipose tissue, so that the form of the breast is preserved."

A curious change takes place in the mammary arteries in old age, so that their caliber is diminished or even obliterated. This change was first noticed by Sir Astley Cooper, and described by him as "ossification." It may be mentioned, in passing, that Sir Astley is correct as to the state of the vessels, but mistaken as to the nature of the deposit therein. It is a deposit, not of *osseous tissue*, but of *calcareous salts*, principally of the carbonate and phosphate of lime. It is calcification, therefore, and not ossification. The arteries of the mammary gland are derived from the thoracic branches of the axillary, the intercostals and internal mammary. The nerves are derived from the anterior and lateral cutaneous nerves of the thorax. The function of the mammary gland is to secrete the fluid known as milk; and here the question arises as to the action of the gland in the performance of this function. Is it a process of filtration, or a process of cell-action? Does the gland, by the agency of cells, fabricate in itself the proximate constituents of milk, or does it merely filter them from the blood in which they preëxist? On this point physiologists are not agreed. Some regard all glandular action as a mere physical process, by which substances preëxisting in the blood are filtered therefrom; others regard it as a formative process, by which substances, not preëxisting in the blood, are elaborated from it by the action of cells. It is a question, unfortunately, which no reasoning can settle, and no investigation solve. There is, however, a preponderance of opinion in favor of the latter view. The true theory seems to be that glandular cells are endowed with a selective and an elaborative power; by the former, they take from the blood what materials they require; and by the latter, they fabricate out of those materials the peculiar secretion of the gland.

The secretion of the mammary gland is a white opaque fluid, of a weak sweetish taste, a slightly alkaline reaction, and a specific gravity of 1030 to 1034. When examined under the microscope, it is seen to contain an immense number of particles of irregular shape and size, suspended in a somewhat turbid fluid. These are the milk-globules. They consist of oily matter, surrounded by a delicate pellicle. In addition to these globules, milk contains, for some time after parturition, large yellow granulated bodies, which are irregular conglomerations of fat-granules, without nucleus or cell-wall, and are known as colostrum-corpuscles. These are found in milk, not only during its colostral state, but also whenever the milk-secretion is disturbed by any pathological condition. Epithelial cells are also found in it; and infusoria also have sometimes been observed.

The proximate chemical constitution of milk, according to Simon, is as follows:

Water,	883·6
Caseine,	34·3
Sugar of milk and extractive matter,	48·2
Fixed salts,	2·3
Fat (butter),	25.3

It consists, therefore, of water holding in solution, sugar, various saline ingredients and caseine, and having oleaginous particles suspended in it.

These *oleaginous* particles are the oil-drops or milk-globules. In cow's milk they are not quite fluid, but have a pasty consistency owing to the large quantity of margarine which they contain in proportion to the oleine. When these are forcibly amalgamated with each other and collected into a mass by prolonged beating or churning, they constitute butter. This substance, when obtained from woman's milk, is richer in oleine than that obtained from cow's milk. The butter made from cow's milk is composed, according to Robin and Verdeil, of these three substances:

Margarine,	68
Oleine,	30
Butyrine,	2

It is to the last of these ingredients, the butyrine, that the peculiar smell and taste of butter are due.

The *caseine*, or cheesy matter, is the coagulable principle of milk, and also its nutritive element. It exists in that fluid in the proportion of from 2 to 4 per cent. It resembles albumen, but differs from it in holding in solution a larger percentage of phosphate of lime, and in being coagulable by all the acids and also by alcohol, but not by heat. The caseine of woman's milk is not so easily precipitated by acids as is the milk of the cow; indeed, it generally resists the action of the mineral acids, and even of the acetic; and it yields slowly even to the action of rennet. It is less abundant than in cow's milk, and its coagulum is less dense, and consequently more easily digested by the infant.

The saccharine matter of milk may be obtained from whey by evaporation and crystallization. It is known as *lactine*, *lactose*, or *sugar of milk;* and it possesses the demulcent properties of the sugars in general. This ingredient is, in woman's milk, two per

cent more abundant than in cow's milk, and two per cent less abundant than in mare's milk. It is nearly identical in composition with starch, and, like starch, is converted into true sugar by the action of sulphuric acid.

The *saline* matter of milk is composed principally of chlorides of sodium and potassium, and phosphates of the alkalies, lime and magnesia. It is nearly identical with the saline matter of the blood, but has a larger proportion of the phosphates of lime and magnesia. The phosphate of lime is a very important ingredient, being that from which the earthly portion of the skeleton is built. It is held in solution chiefly by the caseine, and it has been suggested that "probably the reason of the introduction of caseine to the exclusion of other protein compounds, depends on the power it possesses of holding phosphate of lime in solution; not less than six per cent of its weight of this earthly body being often obtained from it."

The composition of milk varies with many circumstances. Thus, among cows, certain breeds yield a milk in which the fatty ingredient predominates; certain other breeds, a milk in which the cheesy ingredient predominates. And, among women, it is found that the milk of a woman of twenty is richer in solids than that of a woman of thirty-five or forty; that the milk of the well-fed woman of whatever age is always richer in solids than that of the ill-fed woman of the same age; and that the milk of the brunette is richer—in caseine, by 50 per cent, in sugar, by 15 per cent—than the milk of the blonde.

Food which is typically perfect must contain three classes of principles, viz.: The albuminous, oleaginous and the saccharine. Such food is the milk. It contains all these principles, and is the only secreted fluid in which they all exist in any considerable amount. It is, therefore, the food most perfectly adapted to the wants of the young animal. Whatever is required for the growth of the infant's body is found in its mother's milk; there is caseine for the muscular tissue, phosphate of lime for the osseous tissue, and sugar and fat for the adipose tissue.

The experiments of Simon prove that the constitution of the milk varies from day to day, owing to temporary causes, and that it undergoes permanent modifications also, corresponding with the advancing age of the child. "The caseine and the sugar are reciprocally related to each other," the one increasing and the other decreasing from the time of parturition until a fixed proportion is attained. At the time

of parturition the quantity of sugar is at its maximum, while the quantity of caseine is at its minimum. There is a gradual decrease of the former and increase of the latter during the first few months, when a nearly uniform standard is attained. Until about the end of a year after parturition, woman's milk becomes more and more nutritious in proportion to the increased size and strength of the child. Then it becomes suddenly deficient in caseine, and thus loses its nutritive element.

The first milk is called the *colostrum* or *protagala*. It acts as a purgative upon the child, and clears its bowels of the meconium with which they are loaded at birth. This peculiar effect of the protogala is supposed to be due to the presence therein of the colostrum corpuscles. The colostral character of the milk usually ceases during the first week. Sometimes, however, it remains longer, and occasionally it returns at the expiration of twelve months, thus seeming to indicate that the lacteal flow should be no longer encouraged.

Of the quantity of milk daily secreted by the human female it is difficult, if not impossible, to gain a definite idea. It has been estimated at from 32 to 64 ounces. This estimate is made by determining the weight of the child before and after nursing. About two ounces may be artificially withdrawn from either breast at any one time, but this, which must have been contained in the tubes and reservoirs, affords no data from which to estimate the quantity secreted at the time of the draught. By the *draught* is meant that sudden rush of blood into the gland, and of milk into the ducts, which takes place when the child is applied to the breast.

No secretion is so readily affected by the general health and by the quality and character of the ingesta, as the milk. It may be vitiated in quality or increased or diminished in quality by sudden emotions. The taste and color and smell of cow's milk are readily affected by the food; and children have been salivated and purged and disordered in many ways through the mother's milk. The conditions most favorable to the production of a copious supply of milk are, a good constitution, vigorous health, nutritious food and moderate exercise.

When fresh milk is allowed to remain at rest for twelve to twenty-four hours, the oil-globules rise to the surface, and form a rich yellowish-white layer, known as the cream. By agitation of the cream, as in churning, the globules of fatty matter unite and form *butter*. The residue is buttermilk, and consists of the caseine, sugar, serum or whey, and a very small quantity of butter. The milk that

remains after the cream is removed contains the greatest part of the caseine and sugar, and is known as *skimmed milk.* If it is kept long enough, the sugar it contains is converted into lactic acid, which coagulates the caseine and precipitates it in small flakes. The same thing may be accomplished by other acids, but most effectually by that which is contained in *rennet.* The active principle of this substance, which is simply an infusion of the dried abomasus, or fourth stomach of the calf, will coagulate about 30,000 times its weight of milk. If rennet be admixed with skimmed milk it immediately coagulates it, separating the caseine or curd from the whey; and if, when the curd is removed, acetic acid be added, it will cause a still further coagulum, which is known as the ziega. The whey that is left, when the ziega and curd are removed, yields lactic acid, salts and some nitrogenous substances.

Milk, although admirably adapted to promote the nutrition and rapid growth of the child, is lacking in some of the elements required for the proper support of the man. In adult life there is a ceaseless activity, and consequently a constant waste of cerebral and nervous tissue; and for the repair of these tissues certain phosphorized compounds, in which the milk is deficient, are absolutely necessary. Hence it is that milk is not suitable as the sole nourishment of the adult. Still, beyond question, it is the best form of aliment out of the strict order of natural food, and may be used in moderation without injury or inconvenience. It is true that in certain abnormal states of the digestive organs it cannot be taken with impunity; that "some invalids cannot enjoy and some dyspeptics cannot tolerate it; but these are exceptional cases, from morbid conditions, and ought not to form rules for persons in health."

RETRO-PERITONEAL ABSCESS—CASE IN PRACTICE.

By P. ALBERT MORROW, M. D.

I have thought that the details of a somewhat remarkable case of retro-peritoneal abscess, occurring in the practice of Dr. Newton and myself, might not prove uninteresting. Nearly three months since, we were called to see a man who had been suffering for several weeks with a chronic affection, the precise nature of which his previous medical attendant had not been able to determine. He had had a severe attack of dysentery, which left him extremely prostrated. When we assumed charge of the case he was quite feeble; much emaciated, appetite poor, had copious night-sweats and complained of an intense pain in the left lumbar region. On examination there was found a large swelling extending from the lumbar portion of the vertebral column upwards and forwards above the crest of the ilium to beneath the ribs. This swelling was irregularly circumscribed, and the superjacent structures hard, tense and unyielding. A large flax-seed poultice was directed to be applied; opiates were given in quantities sufficient to control the pain, and the patient was put upon quinine and iron. Beef tea, stimulants and the most nutritious diet were ordered. In a few days the parts began to soften, distinct fluctuation could be felt, and the absc ss pointed as if it were going to open externally. It continued in this way for about two weeks, with little perceptible change, except a still further enlargement. The patient grew weaker, typhoid symptoms supervened, the pulse became quick and feeble; there were occasional rigors and shivering, lasting for a few minutes, with hectic fever. His clothes were drenched in perspiration every night, and his symptoms were of such a character as to indicate that extensive absorption of pus had taken place.

It was first conjectured that this might be an abscess of the kidney, as the pain seemed to be most intense in the region occupied by the left kidney. There was retraction of the testicle on the affected side, and considerable pain and uneasiness were felt along the course of the spermatic cord. The urine was highly colored, but, on microscopic examination, there was no indication of the presence of pus.

It was not deemed advisable to open such a large abscess communicating, as this evidently did, with the abdominal cavity. The true

indication seemed to be to attempt no surgical interference, but to support the strength of the patient, and allow nature to take her course. The subsequent developments of this case afford a most remarkable example of the conservative powers of nature.

The boundaries of the abscess, as indicated by the external swelling, were as follows: Posteriorly, it occupied the space from the spinous process of the first to the fourth or fifth lumbar vertebra, a distance of about four inches; it extended upwards and forwards above the crest of the ilium to a point a little beyond the anterior superior spinous process, a distance of six inches; and upwards under the ribs, a distance of three inches. The abscess was not an encysted one, but the pus evidently burrowed between the psoas muscle and the quadratus lumborum, and must have penetrated the anterior and middle lamellæ of the transversalis muscle, and reached the space between the middle and posterior layer, for it was exceedingly superficial along the spinous processes of the lumbar vertebra. There was a communication, but not a free one, between the different portions of the abscess, for, on pressing for a time upon the most superficial posterior swelling, the matter could be forced forward into the deeper anterior cavitity.

About three weeks after the patient came under our care, on making a morning visit, I found that during the night he had discharged from the lungs about a quart of yellowish gray matter, highly offensive, but with all the characteristics of true pus. The abscess had evidently formed an adhesion with the diaphragm, perforated this muscle, and pierced through the pleura into the parenchyma of the lungs, and made its escape through the bronchi.

After the discharge of this large quantity of pus, the pain and other urgent symptoms were somewhat relieved, but the patient was much exhausted, and when the cavity again filled with pus, as it did in two or three days, he was so weak that he could not make the exertion of coughing necessary to bring up the matter. The swelling assumed still larger proportions than before, and, as all the symptoms indicated a speedy fatal result, I began to think we would have an opportunity to study more closely the nature of this remarkable case by a *post-mortem* examination. The third or fourth day after the first discharge of pus through the lungs, the patient was suddenly seized with a diarrhœa, and passed from the bowels quite a large quantity of matter, identical in all its physical properties with that coughed up from the lungs. We examined the matter thus passed

and were satisfied that it was the contents of the abscess which had thus escaped by perforation of the intestine, probably the descending colon. The discharge took place from the bowels for a day or two afterwards. I did not measure the quantity passed, but supposed it must have been at least three or four pints. The patient now seemed to be very much relieved; the swelling was almost entirely gone; he slept better; his appetite returned, and from this time he slowly improved.

There was but little collection of pus for a few days. When the cavity again filled he was very much stronger, and now able to cough and raise the matter through the lungs. The discharge now became changed to a greyish ash color, and seemed to be unmixed with coagulable lymph or any product which would give evidence of inflammation of the pleuræ.

The patient continued much the same for several weeks. The purulent secretion was profuse, and when a certain quantity was collected he would have what he termed a spell of coughing and raise it through the lungs. I may remark that these spells of coughing generally commenced in the night and lasted from twelve to fifteen hours; after they had subsided he was much relieved. The treatment was continued much the same, with the occasional administration of sulphuric or nitro-muriatic acid for the copious night-sweats.

The patient improved very slowly indeed. There seemed to be in his exhausted condition a tendency to this purulent secretion which could not be overcome. Aware of the good effects of iodine in drying up ulcers and purulent secretions, the resultants of a low, feeble inflammation, I determined to use it in this case in combination with a tonic. Accordingly, I put him on the iodide of iron in large doses, and in a week or two, whether from the effect of this remedy or not, the pus was not poured out in such quantity—as this clearing-out of the cavity did not take place oftener than once in two weeks, and finally not at all.

For the last three or four weeks there has been no more discharge of pus, and his improvement has been very marked and decided. After the patient was much stronger he was unable, for a few days, to extend his left leg in walking; whenever he attempted to use it he suffered great pain in the left inguinal region. When we consider the function of the psoas magnus muscle, in flexing the thigh upon the pelvis, we may reasonably suppose that this resulted from puru-

lent infiltration into the substance of the muscle, and perhaps partial destruction of its fibres, by suppurative action. This complication, however, has entirely disappeared, and the patient is now able to walk several blocks with the aid of a cane.

The most interesting question about this case is, whether there was an actual perforation of the intestine and an escape of the contents of the abscess through the bowels? The weight of recorded experience and observation would seem to be adverse to such an opinion, as there have been but few cases reported in which such a complication was followed by a recovery. In nearly all such cases the contents of the bowels escaped into the cavity, developing a peritonitis, which soon terminated fatally. Such an opening might take place into the descending colon, which, at this point of its course, it will be remembered, has only its anterior and lateral walls covered with the peritoneum, the posterior portion receiving no such investment. Certain I am, that, upon the supervention of the diarrhœa, there was a marked subsidence of the swelling as well as an alleviation of the pain, hectic fever and all the prominent symptoms.

BIOGRAPHICAL SKETCH OF THE LATE CHARLES T. HART,

Professor of Physiology in the Eclectic Medical College of the City of New York.

Professor Charles T. Hart was born at Sunbury, Georgia, August 1st, 1835. His family was of the highest respectability. His father was much in public life, and served four years in the Senate of the State. His mother belonged to the Stephens family, of later years somewhat distinguished in Southern history.

Young Hart was carefully educated. He had, however, a strong inclination for a seafaring life; but, following the example of General Washington, he relinquished all purpose in that direction in deference to the wishes of his parents, and became a student in the University of Georgia. He graduated with honor. He selected the profession of medicine, and, in 1857, entered as a student at the Eclectic Medical Institute of Cincinnati. On the completion of his course, he was selected to deliver the valedictory address to the graduating class. He afterward removed to Missouri, and engaged in the practice of medicine. But he was speedily interrupted in this purpose by an invitation to accept the chair of Physiology and Medical Jurisprudence at the institution where he had graduated. He remained in Cincinnati till 1861, lecturing and assisting Dr. Newton as editor of the *Eclectic Medical Journal.* Being in Missouri when the rebellion broke out, he was made a surgeon in the Confederate army during the civil war, at the close of which he settled near Red river in the State of Arkansas. He did not long remain there. His health had been undermined by exposure and privation while with the army, and the miasmatic climate increased his malady. He returned to Georgia, and, in 1867, accepted the chair of Physiology in the Eclectic Medical College of the city of New York. He retained this position till his death, in 1868, in his thirty-third year.

Dr. Hart was married in 1860, and leaves a wife and child to survive him. In his premature death, Medical Eclecticism has lost one of its most able and valuable advocates, and the College, with which he was connected, one of its best instructors. He was a learned and skillful physician, adding to the knowledge possessed by the profession many important contributions, and few excelled him in teaching.

As a lecturer and writer, Prof. Hart was remarkable for thorough-

ness and precision of statement. His knowledge was always comprehensive and exact; his mind was peculiarly adapted for scientific inquiry and observation and the practical adaptation of fact to theory. Had he lived he would undoubtedly have occupied the highest position in the school of medicine to which he belonged, and would have made a world-wide reputation. He was a man above all subterfuge and incapable of playing a double part. His conscience was sensitive to a remarkable degree in all the relations of life, but especially so in his professional relations as affecting his associates and the sick. A strong practical evidence of this peculiarity was manifested in the fact that he invested all his means and effort in establishing the Empire Chemical Laboratory, for the purpose of preparing absolutely pure and the most perfect possible Eclectic remedies.

The Faculty of the Eclectic Medical College of the city of New York held a meeting in honor of the memory of their deceased associate. Remarks were made in praise of his excellence and amiable character; after which the following preamble and resolutions were adopted:

WHEREAS, By the inscrutable will of Divine Providence, who doeth all things well, our beloved associate, Prof. Charles T. Hart, has been removed from this sphere of action and the labors of a brief, but well-spent life, to another world.

Resolved, That we, his associates in the Faculty of the Eclectic Medical College of the city of New York, while we regret his early death, bear willing testimony to his unblemished character and his zeal in the cause of medical reform and the duties of his profession, as well of our high appreciation of him as a co-worker and as a friend.

Resolved, That we hereby tender our profound sympathy to his wife and daughter, who, more than any one else, fully feel the great bereavement.

ROBERT S. NEWTON, M. D.,
President of Faculty.

The Eclectic Medical Association of Ohio, to which Dr. Hart had formerly belonged, at the annual meeting of 1868, also paid an appropriate tribute to his memory. A committee, consisting of Drs. Scudder, Judge and Anton, was appointed to draft resolutions, expressing the feelings and sentiments of the Association on the intelligence of the death of Prof. C. T. Hart, M. D. The following was the report of the committee, adopted by the Association:

WHEREAS, In the dispensation of an all-wise Providence, Dr. C. T. Hart, late Professor in the E. M. College of New York, and formerly a Professor in the E. M. Institute of Cincinnati, has been taken from his field of earthly labor; therefore,

Resolved, That in the death of Prof. C. T. Hart the profession has lost a faithful co-laborer and able teacher, the people an earnest, intelligent and kind physician, and society a good and useful citizen.

Resolved, That the sympathy of the members of the Association is hereby extended to the family of the deceased.

Resolved, That a copy of these resolutions be furnished the Eclectic Medical Journal of Cincinnati, and the Eclectic Medical Review of New York, for publication, and that a copy be sent to the family of the deceased.

J. P. MARVIN, M. D.,
Secretary E. M. Association of Ohio.

HUMAN CONCEPTION,

Its Physiology; Theories of the Ovists, Spermatists and Combinationists; the Zoosperms and their Function; Fecundation; the Electrical Relation of the Sexes, and its influence on Conception; Physical Life as Essential to Psychical Development, etc., etc, by J. M. F. BROWNE, M. D., LL. D., Professor of Physiology and Pathology in the Eclectic Medical College of New York.

Few subjects in physiology are less understood than the subject of human conception. It is one of the most mysterious processes of the animal economy; and its very mystery invests it with a peculiar interest. Multitudes of theories—many of them mere hypotheses—have been advanced to explain it. The theory of the Ovists, the theory of the Spermatists, the theory of the Combinationists—these, and endless modifications of these, have been promulgated from time to time. The theory of the Ovists, propounded by Pythagoras, and adopted by Aristotle, teaches that the female parent affords all the materials necessary for the formation of the offspring, and that the formative powers, possessed by, and lying dormant in, the female product, are simply awakened to action by the influence of the male.

The theory of the Spermatists, among the early supporters of which Galen may be mentioned, teaches that the *semen masculinum* furnishes "all the vital parts of the new animal, and that the organs of the female merely afford a fit place for its repose and suitable materials for its nourishment." And, after the discovery of animalcula in the seminal fluid, many of the Spermatists regarded them as the first phase of human existence, and styled them *homunculi*, or miniature men.

The theory of the Combinationists teaches, that both parents furnish some semen or product, and that the union of these gives rise to the structure or egg from which the fœtus is formed.

Of the modifications of these theories it is unnecessary to speak. Drelincourt reckoned 262 of them, and at the same time promulgated a new theory of his own, of which Blumenbach wittily remarked that "Drelincourt's own theory formed the 263d."

The first of these hypotheses has few or no supporters among physiologists of the present day; the second still finds a few advocates, but the last is the theory now generally received.

Both parents contribute towards the production of the new being. The contribution of the female is the ovum or egg, which escapes

from the ovary at each menstrual period; the contribution of the male is the seminal fluid, which is deposited in the vagina during the sexual congress.

The *ovum* is a spherical vesicle $\frac{1}{96}$ to $\frac{1}{120}$ of an inch in diameter, possessing the nature and constitution of a simple cell, though in some respects peculiar. The cell-wall (the vitelline membrane) is a simple membrane from $\frac{1}{3000}$ to $\frac{1}{2400}$ of an inch thick, very elastic and firm; and, as it surrounds the contents as a clear, transparent ring, it is called the *zona pellucida.* The cell is completely filled by the light yellowish yolk. This is a viscid fluid, having many minute pale granules and fatty granules dispersed in it. Besides, there is in the fully formed ovum a well-marked vesicular nucleus, which is known as the *germinal vesicle;* there is also a hemogeneous round nucleolus, and this is the *germinal spot.* In brief, the ovum, when free from its ovarian investments, is about the one-hundredth of an inch in diameter, and consists of the vitelline membrane, the vitellus or yolk, the germinal vesicle and the germinal spot.

The *semen masculinum* is a colorless fluid, considerably heavier than water, of a neutral or slightly alkaline reaction. It consists of two parts, viz.: *liquor seminis* and the *zoösperms*, sometimes called *spermatozoids* or *seminal animalcula.* The latter are the peculiar histological elements of this fluid, and are the most singular developments of the organism. They consist of a round, oval or pyriform, transparent body, with a tail-like appendage, which gives them somewhat of a tad-pole appearance. They are very small, scarcely exceeding the one ten-thousandth of an inch in diameter. They were formerly regarded as infusorial animalcula, on account of their active motions, the tail striking rapidly from side to side, and propelling the body in a zig-zag direction. "This motion may be retained a long time if the semen is prevented from evaporation, or if placed in tepid serum, saliva or mucus. But if double its quantity of water is added to the semen, the power of motion is lost. Motion is also destroyed by a solution of opium, by alcohol, by strychnia, and by the electric spark." It is a curious circumstance that if the power of motion be destroyed by strychnia, the tail of the zoösperm remains extended.

Whether the fecundating power of the semen is derived from these, or from the fluid in which they float, is a question about which physiologists are not agreed. Some ascribe it wholly to the former, others wholly to the latter. Some contend that the zoösperm penetrates immediately to the ovule and converts it into a nest, in which

it reposes until it is developed into a living fœtus. According to this view the *liquor seminis* or interzoöspermic fluid serves no other purpose than that of a vehicle to convey the animalcule to its place of destination. Others contend that the zoösperms are destined solely to maintain the chemical composition of the sperm by their active movements, and to act as porters of the fluid around them; and that the liquor seminis alone is possessed of the fecundating power. According to this view, the fecundating power depends upon a peculiar chemical sensibility with which the liquor seminis is endowed; this peculiar sensibility is preserved only as long as the fluid is in motion, and the motion of the fluid maintained by the active movements of the zoösperms.

Which of these views is correct there is no means of determining. It may be that there is truth in both. The zoösperms, by the activity of their movements, may maintain the seminal fluid in normal condition, and aid in its transportation through the genital canal; but the fecundating power equally inheres in the zoösperms themselves and the fluid that surrounds them.

The next point to be considered is the means and channels by which the seminal fluid is brought in contact with the ovum. That such contact is necessary admits not of doubt. Some years ago, indeed, the theory was that fecundation takes place by sympathy or consent of parts. That, however, has passed away, and the actual-contact theory is the one which now obtains. But how is this ovo-seminal contact effected? The ovum is received into one extremity of the genital canal, and the semen into the other. They move in different directions and are propelled by different forces. The ovum is carried *downward* by the peristaltic motion of the Fallopian tube; the semen is carried *upward*, as is believed, by three forces combined—namely, by the movements of the zoösperms themselves, by electricity, and by a sort of gentle rolling motion of the rugous coat of the genital canal, excited, no doubt, by the presence of the seminal fluid. While the one passes up and the other passes down, the contact is effected. The time required for the ovum to travel the length of the tube is not definitely known, and it is variously estimated from twelve to eighteen days. The zoösperms, however, owing to their exceeding smallness and their transportation facilities, traverse the canal in a much shorter time.

There has been much discussion also as to when the act of fecundation takes place. The old idea was, that it was synchronous with,

or immediately consequent upon, the sexual act. But the discoveries of modern observers have proved the incorrectness of that idea. The precise time cannot, of course, be ascertained. It depends on the position of the ovum in the Fallopian tube. If it be near the fimbriated extremity, the time will be longer; but if near the uterine extremity, it will be proportionately shorter. Hence it cannot be uniformly the same in all cases. How long it takes to ascend the whole length of the canal we have no means of determining, but the probability is it does not exceed 48 hours; and hence, within that time, after the seminal deposit, the act of fecundation takes place.

But another question presents itself: What time is most favorable to fecundation, in view of the menstrual period?

From the best data we have, it is estimated that the ovum is from 12 to 18 days, as previously stated, in passing through the tube to the uterus. Coition during that time, therefore, or within that space of time after a menstrual period, is most likely to be followed by fecundation of the ovum. Some physiologists maintain that fecundation cannot result from a coitus had after 18 days, or after the ovum has escaped from the uterus. This seems reasonable enough; but experience proves that it is not correct. Married ladies, not desiring any further increase of family, have found it untrue; and even unmarried ladies, misled by books on popular physiology, by peripatetic lecturers and itinerant mountebanks, have ascertained, to their sorrow, that it is utterly false. There is really no time during the intermenstrual period when the consequence of indulgence can be certainly avoided. In proof of this many cases may be cited. One, however, borrowed from a distinguished Philadelphia Professor, will be sufficient for illustration.

"A few years ago," says Dr. Longshore, "we were applied to by a young, unmarried woman, of very respectable connections, and informed that she had missed her courses for the last two periods; upon inquiry, it was discovered that she had morning sickness, and other signs of incipient pregnancy. Upon being made aware of our apprehensions in regard to her situation, after some hesitation she acknowledged that there might be some probability of their accuracy, but she could not see how it could be. She admitted that she had been guilty of an impropriety, but that she had apprehended no danger from that, as it was consummated at a time unfavorable to such a result. She stated that her regular period would have been the first week in January, and that she had *seen company* on Christmas

night, and had been told that there was no danger so long after her former period. Upon being informed that her case admitted of no relief, she returned home disconsolate enough, and, in due time, was delivered of a fine boy. Here the embrace took place within a week or ten days of the approaching period, and conception was the consequence."

But, you may ask how are these facts to be reconciled with the theory just stated? The same high authority suggests this answer: "The seminal fluid is transmitted from the *vesiculæ seminales* to the vagina without exposure to the influences of the atmosphere, and without any change of temperature; and it is deposited in a receptacle lined with mucous membrane analogous to that lining the vesicles. Its surroundings and conditions are unchanged, except as to locality; and there is no reason why it should not retain its fecundating power in its new situation as long as it would have done in its old, which may have been an indefinite length of time. If this is conceded, it is easy to conceive how the zoösperms may be retained in a living condition, within the folds of the mucous membrane, lining the genital canal, and how they may come in contact with the ovum cast off from the ovary at the next menstrual period."

But another question presents itself. Where is fecundation effected? Where does the ovo-seminal contact take place? Is it in the ovary, uterus or Fallopian tube?

Baudelocque, Burns, Sir Everard Home and Dewees suppose that it takes place in the ovary. Notwithstanding this array of distinguished names, it is very difficult to conceive how the zoösperm can penetrate the several structures that inclose the Graafian vesicle. To reach the ovum in the ovary it would have to penetrate the peritoneal membrane that covers the ovary, and also the thick, firm, dense ovarian tunic—not to speak of the three coats of the Graafian vesicle, nor of the granular cumulus in which the vesicle floats. It seems simply impossible, therefore, that fecundation can take place in the ovary.

Nor is it effected in the uterus, for the simple reason that, if the ovum arrived unfecundated in the uterine cavity, there would be no decidua to arrest its descent, and it would escape from the body, like all other ova at each menstrual period.

This decidua is an opaque, rough, flocculent deposit or membrane, which begins to be formed in the uterus as soon as the ovo-seminal contact in the tube has been effected. It lines the entire uterine

cavity, and thus effectually prevents the escape of the ovum. Were it not for the decidua the ovum would pass out as if it had not been fecundated; but it is arrested by this membrane and retained near the point of its entrance, where it forms an attachment and remains until the period of gestation has passed. If the ovo-seminal contact is not effected until the ovum has entered the uterus, conception is not likely to occur. There is not time for the decidua to form, and the ovum escapes because there is nothing to retain it. This membrane is always present after fecundation has taken place, and never exists unless in consequence of that fact. But how it is formed is a mystery, and will probably remain a mystery until physiology and its kindred sciences shall need to be studied no more.

If, then, fecundation does not take place either in the ovary or the uterus, the inference is that it must be effected in the Fallopian tube. There is no other place in the genital canal where it *can* be effected. But the proof of this fact does not rest on a mere inference, however strong. The observations of Barry and Biscoff have put it beyond question that the ovo-seminal contact *does* take place in the tube.

But still another presents itself, namely: How is fecundation effected? This is the most difficult question of all. It was the writer's privilege, some years ago, to hear it discussed by Dr. Longshore, of Philadelphia. That profound thinker and accomplished teacher regards fecundation, "with all its mysteries and obscurities, as nothing more nor less than a change of polarity of the ovum, induced by electric action—as the simple result of the great law of attraction and repulsion, without which all things would cease to be, and by the beneficent operations of which, all things continue to exist." His views are singularly ingenious, and will, no doubt, be read with interest by those who have given any attention to this subject. He discoursed in this wise: "The animal organism is not free from its electrical currents. As regards the sexes, the male, in general, is positive, and the female negative. That there are exceptions to this rule we readily admit. A female may be negative to one male, and positive to another; or, the two may possess similar electrical conditions, and both be positive or both negative to a third party; or, these conditions may become changed by age or sickness, or other disturbing influences, and a dissimilarity of electricity be established between them, when we shall have one positive and the other negative. Animals are no less amenable to the laws of elec-

tricity than other bodies. We assume, then, as a general law, that the male is positive and the female negative. The experiments of Du Fay prove that a body may be one part positively, and another negatively electrified at the same time. During the excitement of the ovary, induced by the maturation of the ovum, may not the ovary become positively electrified while the Fallopian tube remains negative? Being in close proximity to each other, and one being positively and the other negatively electrified, they are attracted to each other. The fimbriated extremity of the tube is drawn to the ovary, and to that part the most intensely excited, namely: the site of the Graafian vesicle, a persistent contact is effected which continues during the ovarian excitement. Immediately upon the ovum's escaping, the excitement subsides; the electrical state of the ovary is changed; it again becomes negative, similar to the state of the tube, which is repelled from the ovary, carrying the ovum with it.

"The matured ovum, having derived its electrical condition from that of the general system of the female, is negative. Having entered the tube through electrical agency, it is carried through its cavity to the uterus by the peristaltic motion of the tube itself. Its electricity may be of greater or less intensity, according to that of the female. The *semen masculinum*, deriving its electricity from the male, is positive. This being deposited in the vagina, while the ovum occupies the tube, is propelled along the genital canal, in the manner heretofore described, aided, perhaps, by electric attraction. We here stop to examine a question that fair criticism may very properly propound: The zoösperms, the essential element of fecundation in the semen, being positive, and coming in contact with a negative body, namely, the vaginal surface, why do they not yield their positive excitement, or electricity, to their negative surroundings, agreeably to a simple law of electricity—that bodies dissimilarly electrified tend to restore an equilibrium? This requires us to pause a moment, to examine into the organization of the zoösperms, and see if they are amenable to this law. Carpenter says, that 'the principal component substance of the mature zoösperms is the same with that which is the chief constituent of the epithelia and of the horny tissue generally, named the binoxide of motein of Mulder.' Now, from the constituents of the zoösperms, they are non-conductors, a class of bodies that receive and part with electricity very slowly, and when touched by a good conductor, the excitement is only removed from the part touched. Their composition, then, pro-

tects them from the operation of the law above stated, and enables them to traverse the canal, freighted with the element of life undisturbed. They pass up through the uterus, enter the Fallopian tube, and meet the ovum, a body more intensely excited negatively, than the structures over which they have passed; they are attracted to it, a contact effected and rendered persistent by electrical attraction; they penetrate the vitelline membrane, now surrounded by and immerged in a fluid negatively electrified; they give off their positive excitement; a new electrical condition is excited in the ovum, *and this constitutes the rudimental life, or spirit of the new being.* By this, the polarity of the ovum is changed, a new molecular action established, which rapidly modifies the entire body, and changes its elementary constituents, as can now be readily perceived; and the successive changes watched from day to day under the microscope.

"Other difficulties encountered, in contemplating the reproductive functions, can be removed, other mysteries solved, and other obscurities rendered clear, by the application of the foregoing theory. Cases of apparent sterility are occasionally met with, such as a man and wife, both healthy and vigorous, living together, and cohabiting for years, say from five to twenty, without issue, and at the expiration of this time the wife conceiving and bearing children. In such instances, at first there is a similarity of electricity that is neither positive nor negative to the other; and as bodies similarly electrified repel each other, the ovum and sperm, being alike, are thus repelled; hence, as there is no electrical change effected in the ovum, there can be no fecundation; but, in process of time, either by the operations of age, difference of habits, occupation and exercise, an attack of sickness, or from some other cause, one of the parties, and it matters not which, becomes more or less impaired in health and vigor, by which the electrical condition becomes changed. One now being positive and the other negative, the wife soon gives evidence that her reputation for sterility was groundless and false.

Cannot the production of the sexes be accounted for upon the same hypothesis?

As it requires the positive and negative to fecundate the ovum, one of these conditions, whichever preponderates at the instant of fecundation, is incorporated with the newly-evolved vital spark, and is reflected upon the new being, stamping it either as male or female, according to the preponderance of the polarizing cause of the father or mother.

Human existence is a combined quality of the physical and psychical. The highest and ultimate object of physical existence is the reproduction and the continuance of the species, to which all other physical considerations are subordinate. The highest and ultimate object of psychical existence is a preparation for eternal life, to which all intellectual, moral and religious considerations are subordinate. These two propositions embrace all the duties of existence. Physical health and comfort, involving the thousands of real or fancied means of attaining them, are essential to the perfect consummation of the first. And high intellectual, moral and religious culture and development, involving the thousands of real or imaginary means of attaining them, are essential to the consummation of the second. And the nearer we approach the perfect consummation of these two objects, the nearer we approximate a state of perfect happiness. The essentials of these two propositions are so intermingled with human existence as to constitute a part of it. Human electricity, emanating from or pervading this combination of the physical and psychical, becomes the representative of the whole, and that, exciting the zoösperms and ovum, being, if we are allowed the expression, the quintessence of humanity, intensified perhaps during the sexual excitement, plants, by the act of fecundation, all the elements of human nature, with their varied significance, in the rudimental being which its presence originates. Hence the physical differences and mental peculiarities of individuals and races; and the family resemblances, physical and psychical, that are everywhere acknowledged to exist. If this does not approximate the rationale of the phenomena and philosophy of fecundation, we acknowledge our inability to comprehend the singular concatenation of facts and circumstances, including the laws of electricity, and even the composition of the spermatozoa, pointing so unequivocally and strangely in that direction, to no purpose."

BAPTISIA AND ITS PREPARATIONS.

By A. J. NIVISON, M. D.

The wild Indigo, or Baptisia Tinctoria, has assumed an importance both with Eclectic and Homœopathic physicians which justifies inquiry whether this confidence is well placed. Its remedial properties, however, we apprehend, have not been defined with sufficient accuracy.

A well-informed homœopathic physician—professor of Materia Medica in one of the Colleges of this city—accords great merit to the preparations of Baptisia, administered both internally and externally, for almost any kind of sores or ulcers—especially those of a putrescent tendency, or where there were discharges from any of the mucous surfaces of a fetid or acrid and excoriating character; for gastric and other intestinal diseases, fevers, particularly those of a typhoid nature; in hepatic derangement, leucorrhea, amenorrhea, and in almost any disease of the glandular system. Many others of the same school are as decided in their testimony on the subject.

In Professor Newton's notes on Syme's Surgery, the properties of the Baptisia are set forth as alterative, emetic, luxative, stimulant, emmenagogue, tonic and antiseptic. We are informed also that Baptisia has been used with very satisfactory results in some forms of rheumatism and pneumonia, but that it is unsafe to use during the period of utero-gestation, as it is capable of producing abortion.

If this statement was strictly accurate there would be reason for apprehension that the use of this extract would become speedily more common; but our brief observation has led us to the opinion that its emmenagogue properties have been overrated. Its influence upon the glandular system, however, appears to be most happy and successful. As an antiseptic it deserves all the credit which it has received. Ulcers generally yield to it with great readiness; and its employment in combination with other remedies appears to be attended with most beneficial results. Baptisia, when combined with Macrotin, Quinia, or Podophyllin, is a sovereign remedy in fevers and all diseases of typhoid character. It is an excellent application for gangrenous and erysipelatous ulcers, for ulcerations of the cervix-uteri, for malignant sore throat, aphthous sore mouth, mercurial sores and other virulent forms of ulceration.

A decoction or tincture of Baptisia answers much the same end in most instances.

Poultices and fomentations of Baptisia are valuable in ulcers and tumors, and also in inflammation tending to gangrene; and swellings and tumors supposed to be cancerous have been treated with it successfully. Yet, whether it can often be profitably employed as the sole remedy, we very much doubt. We have tested it several times, obtaining little satisfaction when constitutional treatment was not superadded. In that conjunction, however, its utility in those respects which we have indicated is beyond question.

Dr. Perry, the Dermatologist of Bond street, makes use of Baptisia in several of his recipes for washes to restore the health of the scalp and arrest the falling off of the hair. Its coloring matter, to a certain extent, may not be an undesirable quality where the hair is turning gray. We do not assume to speak. The experience of Tittlebat Titmouse in respect to hair-dye may be in point. Baptisia has been used in domestic practice or empirically for many years.

A woman past middle life now living in a western county of New York, but a native of New Jersey, informed a friend of the writer that she had a cancer cured by it during her girlhood. She used a decoction, and applied poultices externally. How long a time was required, and the peculiar malignity of the affection we were unable to ascertain; but the impression that Wild Indigo would cure cancer has been very common in that part of the State.

The modern Eclectic practice has adopted the Baptisin in preference to the decoction, tincture, and other preparations of the Wild Indigo. How far this substitution is warranted we cannot undertake to say, but its convenience and efficacy in many respects are established.

During the last year a young lady came under our care suffering from an abscess then in process of formation. It had given her excessive pain for many weeks. It appeared to have its origin in the hip, and when we first saw the case a protuberance was visible on the inside of the thigh close to the body. The abscess was evidently near the stage when an incision for the escape of the pus was justifiable. After a little more softening of the parts the operation was performed, and more than a pint of greenish pus was discharged. The discharge was encouraged for a number of days; meantime especial attention was given to constitutional treatment of the patient, taking care that the diet was proper, the skin kept open and free, and the various

secretions of the body maintained active and as normal as possible. Her appetite for food now became almost voracious. At this time a probe could be passed up in the direction of the hip from seven to eight inches. And as from day to day we saw this aperture was not in the least diminishing, we finally concluded that the time had come to "assist nature," and accordingly employed daily, for the space of a week, a solution of the chlorate of potassa, always following it with the tincture of Baptisia, and taking care that this latter preparation should remain as long as possible within the opening. Both remedies were introduced by means of a syringe. After the week we discontinued the chlorate of potassa, finding its further use too irritating, and employed only the tincture of Baptisia. We now had the satisfaction of seeing the opening grow continually smaller—more circumscribed, until, at the end of five or six weeks, the abscess was cured.

Another patient had been suffering for many years from ulceration of one of the *labia majora*. She traced the origin of the affection to an attack of diphtheria. She had exhausted medical advice upon the subject without beneficial results. One physician assured her that she was liable to have her complaint run into a "menstruating abscess." We found the parts hardened, enlarged, sensitive and extensively ulcerated, the pus escaping through numerous perforations evidently of a fistulous character.

The use of Baptisia alone appeared to be of little service. We then employed in conjunction with it a solution of chlorate of potassa, with no better success. Then we substituted tincture of iodine, which seemed to alleviate the symptoms. This was mixed with the tincture of Baptisia in equal proportions, and injected into the openings of the abscess. The enlargement gave way, the discharge lessened, and the soreness almost entirely disappeared. Constitutional treatment accompanied this administration. She passed from under our care much improved, but before a cure was effected.

We have frequently applied the tincture of Baptisia to ulcerated cervix-uteri with satisfactory results. We apprehend that Baptisin would have been the better preparation. Our observation of Baptisin as an internal remedy has not been considerable, or assuring, but our opinion is immature.

For chronic ulcers of the legs and erysipelatous sores, it certainly may be used with advantage. It would seem as though it ought to have invaluable specific virtue for cancer. This, we apprehend, must be determined by future observation.

PLEA FOR THE NEW SCHOOL OF MEDICINE.

Extracts from a paper read before the New York City Eclectic Medical Society, by ALEXANDER WILDER, M. D.

When we come to discourse about medicine as an art or a science, we find the field too broad for an easy survey. It is picturesque and beautiful, or rugged and uninviting, according to the mood in which we make our observation. In the remarks which we propose to submit, we will endeavor to take our views upon the more favorable side. The medical vocation is founded upon a want of our society, and should be respected accordingly. It will take its place at the head or foot of the learned professions, as its practitioners, by their skill and erudition, or their defects, shall show its claim. It is not a mechanic art, though many who pursue it for a living, by their peculiar way of administering drugs, are apparently so regarding it. Nor is it a science that can easily be mastered in schools and learned from books. Whatever the diploma of a medical college may say or signify, it does not prove that the person receiving it is an accomplished physician.

The older masonic order has its three degrees, apprenticeship, associate and magisterial. The certificate of the schools, which should mean a certain proficiency in scholarship and discreetness about the exhibition of remedial agents for apparent morbid action, is to be considered but as this initiation of the medical catechumen. Careful study and observation, the maturing of ideas afforded by varied experience, are necessary to constitute the "fellow-craftsman." But where are the masters? Answers the echo—"Where?"

Yet the true physician is the epopt, who has passed the hand of the hierophant, and become in his own person the embodiment of his profession, clear in vision, unerring in sagacity, and wise in very simplicity. But one should be careful about such talk as this, if he would avoid the rebuke of the great philosopher: "He who pours water into a muddy well does but disturb the mud."

Nevertheless, when one demands so much for the adept in the healing art, it is not less than the very name of the vocation professes. The physician is the minister and priest of nature. His knowledge cannot lawfully be circumscribed to an acquaintance with maladies and their specific treatment, any more than it is to be the

sole business of the doctor to administer medicine, rather than to teach. Nature as it is, the outbirth of Deity and his external manifestation, is all comprised within the province of the physician's investigations. The eloquent author of "Festus," playing, as we have been, upon words, declared in his poem that *poets* are *undermakers*. He was right to call a poet a creator; and we cannot be far wrong in claiming for the physician the rank of master of the entire world of Nature. It is his province to possess all knowledge. Humanity as a whole is his appropriate study. It is as indispensable for him to know the mental and moral, the entire psychological laws, as to understand the ordinary physical phenomena. Digestion, assimilation, secretion, etc., are to so great a degree the sequence of peculiar vital and moral conditions, that it is necessary to comprehend those conditions before the physician can act intelligently in relation to the peculiar effects which they produce. To treat disease as purely a physical and quasi-mechanical ailment, to be overcome by certain remedies, is, therefore, hardly philosophical.

In taking a position so apparently heterodox, if not paradoxical, we assert in advance, that we hold in the highest regard the knowledges which we consider others as mistaken in considering as pretty much the entire body of medical science. Surgery, although chiefly a mechanical art, is of transcendent merit, abundantly justifying the zeal of students to learn it thoroughly. We are standing, so to speak, in its outer court; and but little known as yet, where volumes are to be learned. The obstetrical art, so vital to the welfare of our human race, cannot be considered as out of its infancy, till the practitioner shall have learned whether he, or more properly *she*, is the auxiliary or the vicarious substitute for the functions of nature. It is not easy to determine the appropriate field of gynecology, when so many physicians are making their living by their practice among female patients. One is at a loss to determine whether the womb is an organ to be regarded with awe and respect because of the sacred function which the Creator assigned to it, or whether it is something for conceited, vain, unscrupulous practitioners to tamper with.

Chemistry has never been half learned. It is too fashionable for medical Eclectics to declaim against Paracelsus, for having introduced mercury into the medical catalogue, and to denounce him as a charlatan and impostor. Why not denounce Galen for the employment of venesection, thus gaining for his followers the appellation of *leeches*, as Paracelsus won for his the epithet of *quacks?* Gentle-

men, Paracelsus was one of the greatest scholars of his age. Better would it have been if the great army of quacks—for I must call them by their proper designation—who assumed to be his disciples, had taken for their portion the gold of his instructions, instead of achieving for themselves a dishonorable immortality with the dross.

It is high time to give to chemistry a higher importance than has been common with those who have discarded the lessons and peculiar practice of the Old School of Medicine. We have a strong antipathy, however, to the use, as a remedial agent, of any drug which comes from the manipulations of inorganic chemistry. It may be proper, and even necessary, in the present imperfect condition of our knowledge, to make use of the safer minerals. Yet we cling fondly to the belief that there is "a more excellent way." As the Supreme Being is worshipped and invoked because he is Life itself and the Source of life, we draw from this fact the corollary, that the proper agents to restore our disordered functions to their normal condition are always substances which have been separated, set apart and sanctified for use by vital action. This is the law, we all know, in relation to food, which must come from the vegetable or animal kingdom, but never from the mineral. I cannot, nor do I desire to resist the conviction, that the same rule should apply to our medicine.

Chemistry has already proved an invaluable auxiliary in our endeavors to make this rule perfect and adequate to our wants. We remember when our text-books were confined almost exclusively to inorganic elements, and the medical practitioner, armed with a lancet in one hand, and with calomel and antimony in the other, went audaciously forth to "kick Nature out of doors." However, "the time of this ignorance God winked at; but now he commandeth all men everywhere to repent." The lancet has become covered with rust; and the use of the Samsons of the old Ignorance is becoming obsolete. Happy would it be for the world if the disciples of that school would be candid enough to confess the source of the Light and Power which wrought among them so much of reform and revolution.

In these changes, chemical science has signalized itself by mighty advancement. From consisting of a portable duodecimo volume half full of pictures of air-pumps, retorts, crucibles, and blowpipes, and a chapter or two about opium, quinia, gums, essential oils, and vegetable acids at the back end, our portliest folios are required to record and illustrate the numerous chemical elements obtained from manipulation of vegetable and animal bodies; and it seems as if language itself had not words enough to give names to all the new

substances which have been discovered. Adam giving names to the animals and Eve to the flowers of Eden, can hardly be named in comparison. This has made the vocabulary of American Eclectics rich with the catalogue of new remedies from indigenous vegetables, which are destined to overturn the citadel of Old School medicine, as effectually as the walls of old Jericho are said to have fallen when the Levites under Joshua made seven processions around them blowing rams' horns. And when once fallen, cursed be the man in all coming generations who shall undertake to build them again.

But for organic medical chemistry there is no place of pausing. Not only must it ransack the entire vegetable kingdom, even fulfilling the prayer of Macbeth—"ministering to a mind diseased," as indeed our Homœopathic friends, with much plausibility, profess to do already with their specifics. The chemistry of disease must take its turn in being unfolded and elucidated. In the eloquent words of Sir J. Y. Simpson, of Edinburgh, physicians must know the exact organic poisons that produce diseases, with all their exact antidotes and eliminatories; look upon the cure of some maladies as simply a series of chemical problems and formula; melt down all calculi, necrosed bones, etc., chemically, and not remove them by surgical operations; stem bleeding in amputations and other wounds, not by septic ligatures or stupid needles, but by the simple application of hæmastatic gases or washes; healing the few wounds required in surgery by the first intention; stay the ravages of tubercle, blot out fevers and inflammations, avert and melt down morbid growths, cure cancer, destroy all morbific organic germs and ferments, annul the deadly influences of malaria and contagions, and by these and other means markedly lengthen out the average duration of human life.

How much farther such exploration and discovery may be pursued almost makes the brain giddy to contemplate. Whether we shall find out the secrets of the human frame, so as to know why the parts ossify and the blood stagnates, and apply preventives to the effects of Time, is the ideal before us. Probably we shall not soon attain the more noble secret of the philosopher, Herakleitus, by which heat or caloric, being the primordial principle of life, can be made its perpetual renovator, and so live on indefinitely. But there is an infinitude of knowledge to acquire, of which we have little idea. To half the virtues of the vegetable world we are yet in the ignorance of savages. We know enough to be aware that one herb will restore a sick person to health; that another will paralyze a wise man into

idiocy; another will prostrate in almost death the strongest athlete—so that tears and laughter, vigor and disease, madness and reason, wakefulness and sleep, existence and dissolution, are coiled up, so to express it, in unregarded leaves. Bulwer declares, poetically, "There are faculties within us with which certain herbs have affinity, and over which they have power."

With so much to be learned, the incompleteness of our knowledge almost seems painful. We have taken gigantic strides of late years, for all that. Our eclecticism, which our adversaries are so fond of stigmatizing as empiricism, has enabled us, in a great measure, to disentangle our limbs from the clumsy scientific apparel with which we had been cumbered. But we did not blindly discard the useful knowledge and practices of our assumptive rivals. The researches were like the net cast into the sea, which gathered fishes of all kinds, bad and good. We have endeavored to follow the evangelical rule, "to put the good into vessels, and cast the bad away."

Not pausing here, we have sought to ascertain what virtues and secret potencies existed in articles which their oracles had indicated as "*not officinal.*" We no more asked their license, authority, or approval in this, than Jesus Christ applied for authority to teach from the Scribes. For this they have stigmatized us as empirics, as ignorant and illiterate. Perhaps there is too much truth in this; nevertheless, we find an apt illustration for it. Jesus taught in the Temple, and the Jews, who were learned, regular and orthodox, demanded, "*How knoweth this man letters, having never learned?*" We answer to all their carpings in His appropriate words: "My doctrine is not my own."

Gentlemen of the Society, the American Eclectic Practice requires from me no vindication or eulogy. It has borne testimony for itself. For those who would arraign it for neglect of scientific investigation, it has already its herbariums, its novel remedies obtained from plants, principally the indigenous flora of our continent, and its extraordinary success in combatting with disease. If accused of narrowness, it has for its defense the widest field of exploration ever occupied by a School of Medicine. To the charge of empiricism we have to submit to the arbiters the fact that all important remedial agents ever employed were first tested by experiment. If it is irregularity that our enemies mean, we are perhaps compelled to yield the point. Our adversaries made the laws and established that infamous professional rack, the Code of Medical Ethics. No man can be regular, in

their eyes, till their enginery has first pulled him out of joint, and deprived him forever of the use of those limbs or faculties with which his Creator endowed him. They have legislated against the right of a physician to practice who did not carry their diploma. They have distorted justice to procure verdicts from courts in their interest. They have even striven to obtain a clause in the Constitution of this State, so that the American Eclectic practice, like impartial suffrage and equal rights to women, should be interdicted by the fundamental law. Indeed, they remind me of the denunciatory question of the martyr Stephen: "Which of the prophets have ye not killed and persecuted?"

But no malice of adversaries can endanger the New School of medicine. The real peril is within its own ranks. What it wants is able and learned physicians. Every medical student should be required to become scholarly in other departments of knowledge. He should carefully abstain, by the use of slang, bad grammar, or worse pronunciation, from doing violence to the noble old vernacular which is denominated his mother tongue. He should be a gentleman in his deportment; refined in his sensibilities. He should make choice of his vocation because he has a love and enthusiasm for it, and a generous regard for his fellow-men. He should then rest content with nothing short of thorough proficiency.

These essential conditions, faithfully observed, will win the regard of the entire community. It will not be possible for the old school, with all its assumption, its monopoly of official station on health boards and as quarantine officers, its pompous display, to hold the palm of professional superiority. Already the ablest medical scholars of Europe read Eclectic books and quote from them, use Eclectic medicines and praise them as such. In this country the books are read but not quoted; the medicines are used, but not credited to the Eclectics. Jealousy, and perhaps ignorance, is the occasion of this. But it will not last long, if Eclectic physicians acquire that general erudition and exercise the good sense which should characterize their vocation. There is a college here; let it be generously supported. Its prosperity is essential to your success and reputation. It will give you more than it will receive. You have no strength to throw away. Maintain your organization carefully. Cultivate friendly social relations, and give to each other your coöperation and sympathy. In this way you will magnify your vocation; and it will soon be accounted an honorable distinction to be a Medical Eclectic.

A FEW FACTS IN ANTHROPOLOGY.

By ALEXANDER WILDER.

Anthropology has but just begun its appropriate work among the races of men. It has endeavored to map them out, to arrange them into classes, and to speculate upon their origin. This is all interesting and to a certain degree necessary; but we want to know and do the law which is inscribed upon our entire nature. The struggle against disease, ill-balanced temper and ungovernable appetites and passions is so constant and diverse, that the inquiry perpetually haunts us, "Why is this so? and how can it be obviated?"

Humanity has as many phases as the kaleidoscope.

We purpose to determine no theological questions relating to the subject. The book of Proverbs of Solomon discloses that Amun, the Divine Wisdom, was present when man was created; the book of Genesis asserts that the *Aleim* created man according to his own image and likeness, and that *Jévè Aleim* formed men, the dust of the ground and inspired him with the vital soul; and the royal Hebrew psalmist chants his imperial greatness:

> "What is man, for thou bearest him in mind,—
> The son of man, for thou keepest him in thought?
> Thou madest him but little less than Aleim;
> Thou crownedst him with honor and glory;
> Thou gavest him dominion over thy works;
> Thou madest everything subordinate to him."

Ethnologists have disputed as to the unity of the human kingdom, and have been answered by the speech of Paul when arraigned before the court of Areopagos at Athens, "God hath made of one blood every nation of men for to dwell on all the face of the earth."

The force of such logic would require the conclusion that the human races were all akin, all formed in the image and after the likeness of God; born immortal and capable of progress, and differing only in degree between the simioid Australian and the most cultivated savan, or genius, like Socrates, Kepler or Shakspeare.

We freely acknowledge that our development, much of it, is relative and superficial. Napoleon Bonaparte once said that if a Russian was excoriated he would be revealed to be but a wild Cossack. Several years ago we read an entertaining paper in the *Atlantic Monthly*, written by one of our countrywomen, a rare thinker, illustrating by

experience and observation, that man, after all, was but a savage, disguised rather than changed by culture.

In this city of New York this condition of savagery often appears without the disguises.

But how shall we define the difference between the lowest and the noblest types of men—the godlike Aryans, if you please, and the demoniac Anaryans of the wilderness?

Color is no test; for the men that excavated the living rock at Ellora, Petra and Philæ, and who built the Pyramids, were the dark skinned Hamitic race. It is not a matter of climate, for the extremes of savagery and cultivation have been witnessed in every region of the globe. It is not religion, for every historical faith has had its highly civilized nations, while our Christianity has not yet subdued the barbarism of Texas, Abyssinia and St. Giles. The racks and thumb-screws yet remain which were once employed to convert men from supposed errors of belief; and the prison is standing which was once used to keep the science of astronomy within the prescribed limits of orthodoxy. Palestine has been repeatedly deluged with blood to arrest the supremacy in turn of Moloch, Mithras, Dionysus, or Jehovah—of Astarte, the queen of heaven, or Mary. Damascus, with an antiquity like that of the mummy that Horace Smith made classical, has witnessed them all. The colonization of the country by the Abrahamidæ was the token of a controversy in the Orient which underlay the polity of the world.

William Von Humboldt said: "Man is man only through the power of speech; but, to possess speech he must clearly be man."

This dividing line, fortunately for ourselves, divides us from the Anthropoid apes. Anciently, writers were less careful about making the distinction. Valmiki, in the *Ramayana*, says that Rama led an army of monkeys, meaning the Dravidian mountain tribes, against the Anaryans or Rakshesas of the Indian peninsula and Ceylon. These he depicts as monstrous in form, godless, inhuman, eaters of human and horse flesh; and, again, as black, with woolly hair and thick lips, devouring men, inhabiting the forests together with wild beasts, flying through the air and sucking blood.

This description is, perhaps, the exaggeration of poetry. We will look out another, which is not chargeable with that imputation.

"In the interior of the island of Borneo, there has been found a certain race of wild creatures, of which kindred varieties have been discovered in the Phillippine islands, in Terra del Fuego, and in

Southern Africa. They walk usually almost erect, upon two legs, and, in that attitude, measure about four feet in height; they are dark, wrinkled and hairy; they construct no habitations, form no families, scarcely associate together, sleep in trees or in caves, feed on snakes and vermin, on ants and ants' eggs, on mice and on each other; they cannot be tamed, nor forced to any labor; and they are hunted and shot among the trees, like the great gorillas, of which they are a stunted copy. When they are captured alive, one finds, with surprise, that their uncouth jabbering sounds like articulate language; they turn up a human face to gaze upon their captor; the females show instincts of modesty; and, in fine, these wretched beings are men."—*Atlantic Monthly*, No. xxxix, page 51.

Other travelers give similar descriptions. Dr. Foster says, of the inhabitants of the island of Mulicollo, that their bodies are covered with black or brown hair; their skulls are so pressed backward, the cheek-bones are so high, and the face is so sooty, as to impart the most disagreeable aspect. He further speaks of them as "a small, nimble, slender, ill-favored set of men, who, of all men, border the nearest upon the tribes of monkeys.

That order of apes, commonly known as gibbons, are remarkably like this race of mankind. They number about half a dozen species, and dwell in the islands of Java, Sumatra, Borneo, and in Malacca, Siam, Aracan, and also in Hindustan. They are the smallest of the anthropoids, being about three feet high when standing. They are of various colors; fond of mountain forests; and, indeed, live almost entirely in trees. They walk erect, but with an awkward gait, and use their hands to assist. Their feet resemble those of the chimpanzee. In the trees they are perfectly at home, and will leap from branch to branch as though furnished with wings, and without fatigue, clearing forty feet at a bound, and catching the birds while flying. The eye can hardly trace the velocity of their motions. Their food is fruit and insects, and they are fond of flesh. They seem to know more than brutes ordinarily, and to have a consciousness of right and wrong.

Mr. Bennett, the author of "*Wanderings in New South Wales*," mentions one that stole a bar of soap, but returned it on being discovered. He remarks, "There was certainly something more than instinct in that action; he evidently betrayed a consciousness of having done wrong, both by his first and last actions; and what is reason if that is not an exercise of it?"

Certainly, a bond-robber, in New York, would have done like this.

Where men and apes flourish in the same districts, and exhibit about the same natural capacity for intellectual culture, the problem of distinction is likely to be somewhat involved. But we will not consent to give the matter serious attention; believing that between the simian anthropoids and these simioid men there is an insurmountable barrier. It is the real subject of inquiry whether these black wild men of the orient have a real kinship with the other races. We have fondly believed in an archaic civilization, the remains of which are left on the plains of Shinar, at Chilminar, Balk, Elephanta, Ellora, Ceylon, Petra, along the Nile, on the shores of the Mediterranean, and even beyond the Straits of Gibraltar; and in the existence of a population—perhaps the Titans and Giants of fable, the Cuthites of antiquity—who read the heavens as a book, knew the inner secrets of Nature and possessed science and arts which we of the modern times have not yet comprehended. From them to the races which we have been considering, the transition is so violent as to seem to be a stepping over into another kingdom of nature. The brain actually seems to grow giddy as we look down upon these more despicable creatures.

Are they degraded members of the present human kingdom, or the remnants of a diverse creation?

Scientific exploration has revealed what theologians have doubted for so many centuries, the existence of Fossil Man.

In the paleontological period, when the pachyderms, saurians, pterodactyls, and other animals now extinct had their habitats on this earth, and the cave-bear, which disappeared at the very beginning of the post-pliocene period roamed over Europe, a race of human beings also existed. On each continent their skeletons have been found. They are supposed to have hunted the auroch and the mastodon with their weapons of flint-stone, and to have trapped the behemoth, building fires to cook the flesh; and to have had funereal and sacrificial feasts and a form of religious worship—all of this thousands of centuries before the received dates of creation. Their remains are found in burying-grounds like the cemetery shown by the elephants of Serendib to Sinbad the Sailor.

Doctor Zimmerman, in his work on the "Wonders of the Primitive World," has given an engraving of this Man of the Drift Period, whose fossilized skeleton was found by Doctor Fuhlrott, in a rocky cave near Dusseldorf. The face is a caricature of the human features;

the body is short, and covered with coarse hair; he wields a flint-stone axe and wears a bear-skin. A female of the same race is also represented, crouching down in a rugged recess of the rock, holding an ape-like infant in her arms. Her visage resembles those exaggerated caricatures which are sometimes exhibited of the Irish features, and her tangled hair completes her repulsiveness. It is hard to believe such a pair would ever live together, but easier to suppose that when they did encounter each other, they had the question to determine each time, whether to gratify the sexual or the cannibal propensity. Yet some authors assert that they were not cannibals.

But who were they? Has humanity, from that time to the present, been a continued progression from the lower conditions to the higher, till a more perfect human creation was developed and made ready to occupy the world; or were they destroyed when the present races came into existence?

It appears evident from comparison that there are many distinct races now existing on this globe as different in species as jackals and dogs. There is no good reason for supposing them to be of one species. The white Aryan, the Semitic brune, and the darker Cushite who built pyramids, are, perhaps, of one species; but the darker and poorer races, that geological investigation seems to assign the previous possession of this earth, are to be classed in other associations. It is probable that the races of mankind have always been distinct, and that they made their appearance on this globe at different periods; the darker-complexioned first, and the white races afterward. But one race of men has never merged into another, any more than any of the tribes of apes and monkeys have so merged, the history of which appears to have run parallel with that of mankind. There is little ground for apprehension that the anthropoid ape will ever be ascertained to have sustained the rank of "our federal head"—"the Adam of our race." Nor need we expect, though tawny Cushites ruled once in Kailas, Susa, India and the Occident, and there displayed prodigious culture and mechanical skill, that they, or the negroes of Africa and Australia, will be able to maintain any plausible claim as ancestors of the blonde Northmen or the "children of Shem." Races of men, as well as of animals, have existed in those far-off periods, run their course, and been encountered and supplanted by others of diverse type. The older tribes then passed away; probably not driven out all at once, but yielding by a law of gradual decay. This is doubtless the case in

relation to the human races of the anterior period, and those belonging solely to our own times.

The indications are that the two have overlapped; and that there are still representatives of the Fossil Man in existence. They are extinct in Europe, where their remains were first discovered; but in India and the islands of the South Sea there exists a race, the one which we have already noted, who seem to be the Autochthons or primitive men. Whether they are similar to those Europeans of the Drift cannot now be demonstrated; but there is no other race of human beings of whom we have discovered remains.

This oriental race may have changed during the vast interval; but it presents us with a sample of the most primitive people known to have existed. It is a black race speaking the most barbarous and undeveloped languages. It inhabits portions of the vast plains south of the Himalayas, and extends southward into the sea, constituting, as has already been shown, the aboriginal inhabitants of Borneo, the Philippines, New Guinea, Australia, Tasmania and New South Wales.

Of all these, Prof. Owen considers the population of the Andaman islands, the very lowest of mankind. They are of diminutive stature; they have no agriculture, no garments, no families, no idea of deity or a future state. Without dwellings, or the capacity to construct them, they occupy the branches of trees. They were the aborigines of the Sandwich islands prior to the real Polynesians.

But though this race of beings has extended over the drift period into our own, the evidence is wanting of any merging into higher races. The negroes of Africa and the barbarians of Siberia and the Pacific Ocean appear to be separated from them by an impassible barrier. The other races, of course, are yet more distinct.

It is noticeable that mankind, in these lower stages of civilization, are shorter-lived, as a rule, than the more cultivated. The negroes of Guinea are old at forty-five, but their kindred on the American continent have much greater longevity. The Europeans of the middle ages did not attain so great an age as their descendants now do. The Americans of European ancestry are longer-lived than their kindred across the ocean, as the experience of life insurance companies abundantly demonstrate. Susceptibility to improvement has always been the touch-stone by which to determine whether a people or race of men could hold a place, and, substantially, whether they could even continue to exist at all.

Cultivation adds to the vital stamina of a people. The proverb that "Mankind grow wiser and weaker," is a fallacy. There is no occasion for metaphysicians and others to assert that mankind purchase refinement at a sacrifice of physical vigor. Civilization is not a suicide of the human family. The condition of perpetuation in a people is improvement. The races that find it beyond their power to sustain extrication from savagery are short-lived. Elsie Venner, when the snake-nature had died out of her, was in no more hopeless a condition than these autochthons would be if isolated from their primeval habits of life and placed in civilized society. Inevitable destruction, not moral and intellectual elevation, awaits every inferior people. Whenever a savage tribe begins to decay, it is sure to perish utterly; but a civilized nation often arrests the work of destruction among its own population, and recovers the former vitality.

When cultivation is attended with deficient physical vigor and stamina, it can generally be ascertained that the development has been one-sided and incomplete. Indeed, it is probable that disease itself will yet be found to be an incident peculiar entirely to imperfect development.

The mate of a ship once observed a seaman, who had been sent up a mast, about to fall from giddiness. He cried out: "Look aloft." The man did look upward, and so was enabled to gain composure, and execute his order. Analogous to this is the requirement for every individual in his own case; he should also "look aloft," to add not merely to his intellectual and moral forces, but through them to the physical stamina. We have no call or "mission" to go out of or away from our nature, or even to get above it.*

We need not expect "angels' wings"—certainly not in our present form of existence, and most probably never at all. Perfection in

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*Sir Edward Lytton Bulwer, in his weirdest romance, has made his hero an example of the futility of the endeavor of man to extricate himself from the conditions of his existence as a human being. Zanoni is a Chaldæan of the ante-historical period, who has mastered all the science then possessed by the sacerdotal and learned orders, and thus attains the possession of the Great Secret, with marvellous preternatural powers—among them oral communication with beings of the intermediate world; ability to perceive the thoughts of others; magical endowments, and the art of prolonging life for an indefinite period. A condition of these attainments was, abstraction from the ambitions and sympathies of the common life of man; nevertheless, at the last decade of the eighteenth century of our era, he loves and marries. He is foiled in every endeavor to impart to his wife his supernal powers. Repairing to one of those cave-temples which were occupied in the archaic period for worship and oracles, he summons to him Adon-Ai, a spirit of the intermediate world, and asks of him the desired knowledge. Adon-Ai suggests that the fusion of the two natures may be accomplished by the intervention of a third deriving existence from them both. The seer is enraptured at the idea of becoming a parent; at which Adon-Ai demands: "And is it to be a man, at last, that thou hast aspired to be more than man?"

Miss Bremer, in the "H—— Family," gives a more amusing illustration. Count Karl is in agony at losing his inamorata, and in a mad search for her, calls at the house of a friend. The children are in uproarious play, and pursue him into the family larder, or store-room. Here he rests a few moments, when he perceives the aroma of food; and although his imagination had been soaring in the empyrean, he now succumbed to the commonest earthly impulse—hunger.

Both the lover and the sage found the circle in which they were moving to lead them back to their place of beginning—their own humanity.

development is the ideal, and wings being but imperfect, unfinished arms, according to naturalists, cannot be organs of a perfected being. We should accept our nature for what it is, and endeavor to make it what it should be in every faculty, sentiment and peculiarity. The head should have its perfect freedom to move in the atmosphere above, but the feet must be permitted to tread the ground. In other words, the body should not be interdicted as to its inherent wants, nor the mind in regard to its legitimate, higher aspirations: Every part of the nature is entitled to equal and appropriate care. We are to operate in it in its every part and function. The more complete and uniform the development of the mind and intellect, the greater is the stock of vitality, and the brighter the prospect of long life.

The ancient sage spoke wisely: "MAN, KNOW THYSELF."

TREATMENT OF CANCERS.

Read before the Brooklyn Academy of Medicine, by Prof. WM. W. HADLEY, Professor of Materia Medica and Therapeutics in the Eclectic Medical College of New York.

The history of the treatment of cancers brings to our notice a more diversified set of remedies, probably, than the treatment of almost any other malady that comes under our notice.

In the first place, there are many—the public as well as the profession—who solemnly believe that a real, genuine cancer never was and never can be cured. They make the statement freely, and would, no doubt, be willing to make an affidavit to that effect if called upon to do so. In the next place, almost every physician will recommend that the disease be extirpated with the knife, saying that although that may not be a remedy, still they do not know what else to do, and that if that does not cure it, why there is nothing in the world else that can be done.

The fact in regard to the whole matter seems to be this, that the disease is considered incurable; consequently, when one is discovered, the patient is kindly informed that it is best to do nothing with it; that it will probably do them no harm, nor shorten their life, and if they go to any of these "cancer fellows" they will only put them to a good deal of pain, trouble and expense, and perhaps destroy their lives at last. This of course has a tendency to make them relax their efforts for relief, to quiet their minds on the subject, and in many cases induces them to delay any measures for treatment till it is too late for any successful issue; for if there is any disease that should be treated in its earlier stages, it is carcinoma.

Although this disease is considered to be incurable by many in the profession and out of it, and is looked upon as one which must terminate fatally, in spite of all remedies that can be employed, yet, in these last few years, medicines have been discovered and used that have produced the most perfect cures--as perfect as if the person had never been afflicted with the malady.

I know that this statement may be looked upon by many as if it should be taken with many grains of allowance; at the same time, I can but reiterate it, because I believe it as much as any statement that can be made.

There are several varieties of cancer, or the disease appears in a variety of forms. I shall not stop to enumerate them here, but will only say in regard to them, that either kind will prove fatal unless it is appropriately treated and cured. The disease appears in diverse localities on the body; no part is exempt from its ravages, and no two cases, even if of the same variety, have I ever seen that were in all respects alike. The disease seems to be parasitical in character; that is, its formation or construction is composed of a differently-formed cell from that of any other of the tissues of the body. Also, when it has selected its locality, these cells increase, or are propagated from the original nucleus, and the diseased structure increases, crowding away the healthy tissues, till, eventually, it becomes a large tumor or ulcer, attended with destruction and decay, accompanied with pain of a severe and often excruciating character.

The disease, when confined to its original locality—that is, in its incipient stages,—may be perfectly destroyed and removed from the body; but when ulceration occurs, absorption of these cells will follow, and the blood and fluids of the body will become poisoned by their malignity, when it will become next to, or quite impossible to eradicate and cure the disease. Hence you see the propriety of early treatment; for, in no case is there more need of prompt attention, than in diseases of this class. There is no question that it is incurable if not taken in due time. If it is left till absorption has gone on for a length of time, the attempt to cure must prove a futile one; the system has become too much filled up with the virus; the glands are involved, and the poison is so thoroughly infiltrated through the tissues, that any efforts with any known remedies will only end in disappointment both to physician and patient.

In treating a case, therefore, if you desire to succeed, be very careful, if you encourage them with a favorable result, that it is in its incipient stages; that it has not become ulcerated and absorbed; that it is situated where it can be entirely reached; that the constitution is otherwise comparatively healthy, and other surrounding circumstances are quite favorable. Before you undertake a case of this kind you must make up your mind that you are going to conquer it, that you fully intend to cure it, and whatever may befall you, however many discouragements you may meet, you must persevere to the end, and determine to be victorious over all obstacles. It then becomes you to select well, and with discretion, the remedies you propose to use in the treatment. You understand that the diseased

portion must be entirely and absolutely destroyed. If there is the least portion or particle, even a single cell, as it were, of the disease left remaining, your efforts for cure will have been all in vain; for the disease will continue to grow and increase till it will be as bad as it was originally. A variety of agents have been used for these purposes; many of them are effectual if properly employed; others are entirely valueless. The principal thing to be kept in view is, to employ a remedy that will destroy the disease in the shortest space of time, and accomplish it with the least expense of suffering to the patient. There is a difference in remedies in this regard; some can be borne very comfortably, that is, comparatively so; others will cause the most excruciating and unendurable agony.

The *Sulphate of Zinc* is used by many in the treatment of this disease. This is quite effectual, and much relied upon; it is, however, quite painful, but this may be obviated to a great extent by the use of Morphia, which is given internally, or may be used directly to the sore. The *Chloride of Zinc* is also much employed in these cases, and, from my own experience with it, I am more partial to its use than the Sulphate, because it seems to be more penetrating in its effect; it will destroy more in a given time than the Sulphate; and consequently will cure the disease more rapidly. Both of these articles are much used, and both are excellent remedies. There may be a choice between them, owing, perhaps, to the condition of the sore, or for other reasons. In a case of Fungus Hæmatodes, or where there are fungoid excrescences, or where there is a great tendency to bleed, the Chloride has an excellent effect in repressing it, at the same time that it proves destructive to the diseased mass.

Potassa Fusa has been used by some to a great extent in their treatment. It is very destructive in its character, destroying the tissues immediately on coming in contact with them, but there is great liability to hemorrhage from its use, as it has no restraining power in preventing it. Hence, it can only be used in those instances where there would be no danger from this source. *Sulphuric Acid* and *Nitric Acid* have been employed for the purpose of destroying them; they are both, however, very painful, but there is no danger from hemorrhage by their use.

More recently the *Acetic Acid* has been used in the form of a weak solution, and employed by injecting it into the tumor by the use of the hypodermic syringe. The reports from its use have not been very satisfactory to me, at least I have not seen any case reported where it

had proved efficacious; and the only mode of judging of the quality of a remedy is the success with which it is used in effecting a cure. The *Carbolic Acid* has also been employed with considerable advantage in the treatment of some cases of this character, those of a superficial nature, in their early stages, like the epithelial cancer and the Lupus; these varieties, being upon the surface, are easily reached and disposed of by suitable remedies. The Carbolic Acid in crystals, or in the liquid form, as it melts at 92°, may be applied, and generally is sufficiently caustic to destroy the diseased growth. This is a much milder agent than any other that I have spoken of; but it will act upon the diseased tissue without producing much effect upon the healthy structure; the others act upon the living, healthy tissues, but not to so great an extent as upon the diseased. But it becomes necessary to destroy a portion of the healthy parts, so we can have a healthy surface to heal from, in order to be perfectly sure to cure the disease. Some claim that their applications only destroy the diseased parts, and leave those that are healthy entirely unaffected; but all those which I have been accustomed to use do not act that way. I may say that they possess less intelligence than some claim for theirs; therefore, in using them, it would be necessary for the operator to have some intelligence himself. In the use of any remedy, it will be necessary, in applying it, to be careful that it is not applied too extensively; that is, no farther than it is requisite to destroy; and also great care must be observed that it do not run out from where it is wanted, and excoriate places that need no action of that kind, and make a sore unnecessarily.

There may be other available remedies that I have not referred to, that may be as useful as those that I have; but I think that a judicious selection from these will enable any one, with a suitable experience, to cure all curable cases. Every case of cancer cannot, of course, be cured. I have as many, or more applications from those I cannot cure as from those that I can. This morning a gentleman applied to me who had one in the lower maxillary. It had been some six or eight months since he first felt any symptoms of disease there, manifested by a slight pain and pricking sensation. Two months since, he had one side of the jaw nearly all cut away, and six weeks since the remaining portion as far back as the ramus. It had reappeared, involving the whole tract where the bone had been removed, also a large protuberance in the cicatrice of the incision made for its removal. Many people neglect them entirely too long; they do not

become alarmed till the disease gets to be of alarming proportions, and the whole body is poisoned with the malignant virus, when, of course, it is out of the question to think of effecting a cure.

Before treating a cancer, you must estimate its extent, and be satisfied with its locality; be sure that it does not involve any large blood-vessels, or lie upon the track of any principal nerve; then, when you are satisfied upon these various points, and any others that may be necessary to be taken into consideration, select your remedy and apply it, and continue its use until you are certain you have destroyed the whole of the diseased growth, and the result will be that you will discover, when it has sloughed and healed, that you have cured your cancer. By following this course, you may become successful in their treatment, and celebrated in that line, which you will find anything but a pleasant employment. But this one thing you must always and constantly bear in mind, and that is, entirely destroy every portion of the diseased growth; then, and not otherwise, will you be successful in their treatment.

AGUE.

Read before the Eclectic Medical Society of the city of New York, by Prof. E. FREEMAN.

Ague is a disease very common among us, much more than many are aware of. It appears in very many forms, and often is mistaken for other diseases which it nearly resembles in general symptoms. It is owing to this fact that I am induced to call your attention to it to-night. I have not the time to go into a lengthy disquisition on the subject, and tell its history and all the various localities in which it may be found, but merely to adduce some few facts relating to it, and call attention to the treatment of it. I think all will admit that it is a disease produced by malaria, although it may not be so easy to define what that malaria is, in its essential elements. It affects the body under certain circumstances and in certain localities, and is of such a nature that it may be carried in the body from a locality to another place, and be developed in that place. It cannot be discovered in the air by chemical analysis, or by the microscope; it is movable by the wind, ascends from the surface of the earth where the land may be dry and barren, without any vegetable decomposition; often arises with the dampness or fog of the night, to which it clings. If the current of air bearing it pass through a forest or over water, it leaves it there. Moist, boggy places are its greatest breeders, but it also comes up from the edges of receding waters, where the bank is drying and evaporation rapid. It is not necessarily associated with decomposing vegetable matter, although it may accompany it. In America, the bottom-lands of rivers, especially those that often overflow their banks, and receding leave them to dry again in a hot sun, are prolific fields for malaria. Also boggy meadows, through which sluggish streams pass, and the great plains of the West will distill this poison in such abundance that most any one, by a short visit to those localities, may get as much as he may want in a life-time. Its effect upon the body is certainly very mysterious, and it is of that character that the system becomes sometimes ever thereafter predisposed to ague on the slightest change in its varying from its normal condition. There is evidently, in its first development, a receding of blood from the surface to the centre of circulation, more or less marked, according to the intensity of the causes

acting, producing a coldness varying from a slight chill to an aggravated congestive chill, resulting from that, or following it, is often a fever more or less severe or intense. I say often, for often the fever is not detected by any increased heat of the surface, thirst or any of the usual phenomena attending such a condition. Sweating, also, may or may not follow this stage in its order, but that is a symptom that, except in certain localities, is as often absent as present. Therefore it would not be safe to decide that because there is not chilliness, fever and sweating, each in its order, that there is not ague. I have often seen cases of ague where only a foot would become cold at a certain time of the day, with no apparent fever or sweating. Treatment for ague would get them well, whereas other kinds of treatment would, perhaps, tend to break them down and make them worse instead of better. Periodicity is also another very important feature of this disease, and tends to establish in the mind the fact of the character of the disease. I have had lately several cases of neuralgia of a very severe character, which I relieved quickly by giving medicine as I would for ague, in which the feature which particularly arrested my attention was, that the attacks recurred every day about eleven o'clock, and lasted until evening. The apparent severity of the symptom vary according to the amount of vitality of the persons attacked. Some will have a heavy shake, and others only a slight chill. The fever will run high in some, others will have none; some will sweat profusely, and others not at all. These conditions are also modified, I think, by the character of the malaria. What the differences in that subtle disturber of our ordinary vital operations are, I cannot tell, any more than I can what it is itself. But we all find that in some localities one person will have the disease very much more intensified than in another.

I think it must affect in some manner the great central sympathetic ganglia behind the stomach, for the organs to which its nerves are more immediately distributed are those which suffer the most, viz.: the liver, spleen, stomach, intestines and kidneys. A disordered or torpid condition of the kidneys almost invariably precedes it, whether it be noticed or not by the person afflicted, and during the cold stage the person is oppressed, and the kidneys are apt to throw off very watery urine. The heart labors, and there is a tendency to venous congestion in the great vessels. Now, if the function of the great sympathetic nervous centre was depressed by the malarial poison, those results might follow in those organs mentioned, and the

vascular system, which depends on the sympathetic for its proper nervous stimulus. Yet, it would seem that there was some specific virtue in the poison, by which it produced a particular effect upon the liver, as that gland becomes so susceptible after it to exactly the same derangements; yet we can imagine how local congestions may produce those same results.

It is difficult to account for the periodical recurrence of the chill at a stated hour every day or alternate day. Habit cannot account for all the phenomena, and it must be owing to some affection produced upon the nervous system, or some impression made upon the blood. It has been suggested by some one, that there is a loss of power of producing a substance which has been found in the muscular tissues of the body, which very much resembles quinine, which is possibly produced in the liver and thrown into the blood in health, but which, I suppose, the nervous derangement, such as I have intimated, prevents that organ from supplying. Quinine supplies that principle to the blood, and, from its powerful effect in arresting the disease, is considered a specific. When the disease runs its course without being broken, the blood changes materially, becomes paler, more watery and insufficient for vital processes; the portal circulation becomes impeded and that organ becomes congested and its functions deranged. That which is normally thrown off from the blood is retained, and that fluid becomes loaded with effete matter which the other excretory organs in vain attempt to throw off. The skin often becomes filled with humor, or the persons may have severe bronchitis; or the nerves and fibrous tissues may be irritated by it, producing neuralgia or rheumatism. In such cases there is always a noticeable periodicity which distinguishes them from the ordinary forms of those diseases where produced from other causes. If this be not borne in mind, mischief may result from an improper course of treatment. It is called dumb ague when there is no distinct chill or fever and sweating, but merely a creeping coldness along the back, or a slight coldnesss of the feet or one foot, or ear, nose or any other extreme part. It is called masked ague when it appears under the guise of symptoms of other diseases. I have known toothache to recur periodically at a certain hour every day, and be cured by the internal administration of antiperiodic medicines.

My treatment for this disease varies for the different conditions; I always administer my antiperiodic medicines to the extent of crowding them in the intermission between the attack; not ceasing to

give them, however, when the fever is on. When the fever is high I favor the use of gelseminum and veratrum in pretty full doses, to abate it as much as possible. I have never found anything better for the antiperiodic than ℞ Quinine gr. 1½, Ferri ferrocy. gr. 1, Pulv. Capsicum gr. ¼, F. pills. Take every two or three hours, and double the dose just before the chill time. I sometimes give simply the quinine in one or two grain doses as often, and gelseminum in full doses half as often, or every four or five hours. I especially use the above pill in both dumb and masked ague.

Other complications must be treated, of course, as they present themselves, but they speedily give way when the ague is broken, and until that is done, the other is a difficult task. In recent intermittents I often use a mixture of Quinine gr. xij. and Tinct. of Gelseminum ʒ ij or iij, with or without Spts. Ætheris Nitrici ʒ ij, with Simple syrup ℥ j, M. This is a good preparation for children in less strength. There are many other agents that are of some value in this fever, as cornin, which is more efficient in combination with quinine. So also are cerasin, macrotin, prunin, tannin, and others that I might mention.

Having thus opened up the subject without going thoroughly into its merits, I leave it to the Society to discuss and decide upon anything in the course of symptoms that seem obscure and inexplicable, and in the treatment that I have not here given; for it must needs be that every one has something different from another to present in the treatment of this very common and troublesome disease.

AN ADDRESS,

At the semi-annual meeting of the Eclectic Medical Society of the State of New York at Syracuse, on the 24th of June, 1868, by J. G. FROSS, M. D.

Mr. President, and Gentlemen of the Eclectic Medical Society of the State of New York, and Fellow Citizens of my own city:

It is with blended emotions of pride and gratitude that I accept the pleasing task of addressing you on this occasion. I have chosen progress as my theme, because this Society represents reformers, and the great popular heart pulsates in unison with reform.

Progress is the motto for all time. The Great Creator has established it as the law of the universe.

The songs of the ages derive their melody from its inspiring power, and everything that exists must conform, or be broken in the conflict.

From creation's first dawn, when our earth was molded into form, until the culminating glory of creative power was reached, through each successive period or day, progress never failed to make its mark on each ascending scale until man was formed in the likeness of his Maker; then creation ceased, for the Great God would go no farther than to place his image upon the workmanship of his hands.

But this law of progress did not cease with creation; for its most glorious work is to develop and perfect it all, and especially that being for whom everything else was made.

It is an interesting fact, that, by nature, as well as His word, God says, go forward all ye created, and perfect the powers which I have given you. Hence, progress is to continue the law that shall exist until the end of time.

This law affects the arts and sciences, and everything that comes within the power of man's control. This is one of the decrees of the Great Father, and no despot of earth can stay its power to move the world.

Therefore, every reform that is to benefit the human race will prosper; while the crushing weight of God's displeasure shall rest upon those who strive to stop its progress.

How does the world stand between Galileo and his persecutors today? Has it moved? Or does it stand still? Is not the honor due

accorded to him and his great discovery? And does not the world look with contempt upon the men who were his persecutors?

Was Harvey a lunatic? Or do hearts beat, and arteries throb, and does blood flow through the veins of humanity?

Was Fulton a foolish, visionary man? Or do the people rejoice in the success of his great invention?

Whose are the honored names in American history to-day? Are they the Tories who stood by the old, or the Patriots who fought and bled for the new?

How stand those in Europe who opposed our rights and ridiculed our efforts?

They stand disgraced, and their children are quaking with fear, for they hear the tread of the people as they march onward towards the goal of their ambition—Constitutional Liberty.

The science of medicine has not made as rapid progress as it ought or the spirit of the age demands. There has been too much jealousy and bigotry among its members to admit of that unbiased research for truth that must animate all who would successfully gather its treasures.

Almost every new discovery has met with the most obstinate resistance, and its originator has been persecuted with bitter hatred. A few men have assumed the leadership, and required that everything must come through them. What they did not know was virtually declared to be not worth knowing, and therefore must be rejected. They have resolved that nothing is worthy of investigation unless it comes through their regular brains. It is virtually a high crime against their code for a man to have a mind of his own.

At their National Convention, held in New York city, they resolved to expel any member from their ranks who would exercise the right of an American citizen, to think for himself, or even to investigate any theory but their own. They might as well have said, we hereby resolve to perpetuate ignorance and stifle progress, and we mean to blast the reputation of all who are not willing to join us in the work of perpetuating the dark ages.

Some of their best and wisest men have been expelled; and, as they came out from the darkness into the light, they have thanked God for liberty.

There is much that is good and true among the gleanings of the past. This truth is free to all, and, as no person has a right to its exclusive possession, it should be owned by all. Every truth that

God has given to the world belongs to you and me and every intelligent creature He has made; and it is the height of folly for any mummy to claim it as his alone, because he has shut himself up entirely with the past.

Some people have overweening reverence for antiquity. Everything must be old, even if stale, before they will touch it. It would hurt them exceedingly to mix anything modern with their mental aliment. If they are obliged to take it at all, it must be tempered with something very old; and, for fear there may be enough of the radical in it to injure them, they must do their own compounding, or, at least, very cautiously have it labeled, "it is mine." Every step they take in advance must be demanded by the people, whose voice they must heed or starve.

The fact is, they have become so accustomed to the darkness of the past, that they can hardly tolerate the light that progressive radicalism is giving to the present. They heed not the fact that, in the past, they are surrounded by the vast realm of death, and that they who stay entirely there are as much lost to these stirring times as if they had been buried a thousand years.

There is no power on earth that can stop the onward march of truth. All must acknowledge that the world moves. The errors of the dark ages are passing away.

The people are learning that those who exclusively worship the old because it is regular, are bound to a "body of death," whose only movement is the effervescence of decay, and the poisoning of all who seek its embrace. It would hold the world back from its allotted destiny, but the power opposed to it is infinite; and it must yield to fate, and be buried with the relics of the past.

Governments must yield to the demands of an enlightened christian civilization, which proclaims the universal brotherhood of man and equal rights to all.

Iron roads will cleave their way from ocean to ocean, spanning continents, and binding State to State in close embrace.

On the speaking wires, the news will sweep with lightning-speed over continents and through oceans, bringing all nations into one neighborhood.

The arts and sciences are making rapid progress. The masses are now educated to think. The shackles of prejudice are giving way and all that can enslave or brutalize must cease to exist.

The present century is filled with momentous events and grand achievements that will benefit and elevate humanity forever.

To live in these stirring times without being inspired with the spirit of the age is to evince a torpidity as complete as if we were locked in the embrace of death. Let the dead past bury its dead, and, taking the living truths, which it has given us, let us press on to a more perfect future.

There are now being erected upon the "eternal rock of truth," by the enterprise and genius of the nineteenth century, "such magnificent structures of utility and beauty," as we may hope will benefit the unborn millions who shall people all future ages—gifts of this generation to posterity until the fabric of time shall be folded into the lap of eternity.

But while we freely give, hoping to benefit the world, it will not be wise to calculate that the structures we erect will be enduring unless we so construct them that they can be changed to meet the growing needs and intelligence of all the future. I would say to all who oppose the progress of the present age, that, in these times, you might as well expect a full-grown man to wear his baby clothes, or live in a tent, or write his books on birch bark, or plough with a crotched stick, and make his journeys on a jackass, as to think of confining this and future generations to the ruts you have worn by stupidly keeping in one beaten track.

You may, if you will, erect monuments of truth in the highway of progress, to remain forever as helps to all who would go higher than you; but you can never arrest the incoming tide of improvement at the point where you cease to climb. The founders of the reformed practice of medicine have acknowledged this truth in choosing a name. We have ample room for all future improvement. Our edifice is to be erected with care for the wants of all coming time. Having a right to choose the good and true from every system of the past and present, we reach out to the future, and are bound to welcome all improvement from every source.

Sydenham, Hunter, Abernethy, each had an opportunity for founding a broad school, but they made the mistake of building up an exclusive system of practice. If they had established as a living principle the right and duty of all men, for all time, freely to investigate as they had done, our honored and much loved profession would now be vastly in advance of what it is. It was left for free America and the nineteenth century to put this grand truth into distinct form,

and to place it as the foundation rock upon which the temple of medical reform for coming ages will be built. It was left for men in the nineteenth century to labor and make sacrifices, that intolerance—that great relic of barbarism and enemy of liberty and progress—might be overcome, and the right to investigate, select and think, be given as a common heritage to every intelligent creature forever.

It is an indisputable fact, that, in the creative period, a low form of life not only gave place to a higher, but formed the nourishment upon which it fed; and thus, through various degrees of improvement, our earth was prepared for man, that being whom God created with faculties that have unlimited power for improvent.

As in the field of nature, preparation had to be made for the culmination of creative power, so in the realm of truth, there must be a gradual development for ages, to prepare the world for the reception of its final great achievement.

As nothing can supersede man, because he is allied to the Divine, (and can adapt himself to all conditions of life in every age), so let no other system supersede ours; for it is truth based on that truth which is an attribute of the deity, and therefore has in its nature those elements which will cause it to grasp all improvement and adapt itself to the needs of all time to come; for truth to-day will be truth forever. I do not mean by this that our system of medicine has achieved perfection; far from it, for it is only in its infancy now, but my great joy is, that our rising structure is placed upon the foundation-rock of "Eternal truth," which assures its eventual success. It now remains for us to build upon this foundation, and we must be sure that our structure is laid as broad as the truth upon which it stands, for the growing intelligence of the age will not tolerate any contractions to benefit sectarianism or bigotry. We must not attempt to found a sect, but a broad system, that shall reach out its benevolent arms and fold all sects to its embrace, and win them by the voice of charity and reason to join the brotherhood of those who labor for the good of humanity.

There is much work to be done to assure the consummation of this great reform, and it must and will be done. If we prove recreant to the trust that is given us, others take our places. The world has seen too much of the light to go backward now. These truths must live, and men with minds expanded by their power will be inspired to the noble work. We speak confidently, because we judge of the future by the past.

No great reform has ever yet been killed, or lacked for true defenders. It is but a few years since this one was first begun, but it has done a great work already. It is revolutionizing the practice of medicine in Europe and America.

A few obscure men, but forty years ago, asserted that the lancet, calomel and antimony, and all such depletive measures, were deadly agents, and that the true means of healing were to sustain the vital forces and assist nature to remove disease. They were then abused and persecuted, but the truths they taught are now acknowledged on two continents, and the worst features of the old practice are passing away. Many of its adherents have joined our ranks, and still there is room for more. We have now a large number of well-educated physicians (over ten thousand in all), scattered over this continent, and our ranks are constantly augmented by accessions from other schools, as well as the graduates of our own medical colleges.

When we consider these results, we should not shrink from the responsibility and labor of carrying on the noble work so well begun. We must work, too, if we would succeed. We should work to elevate the standard of medical education, and promote the interest of our cause. We have no right to be satisfied with the attainments of the past or present; neither should we relax our efforts until we have discovered a remedy that will master every disease that afflicts humanity. We must work faithfully night and day to attain a knowledge of our profession. We have no right to be ignorant of the laws of life, or the best means to cure disease.

We know that there are many physicians who cling so tenaciously to sect that they will not use, or even look at any remedies but those of their own school.

Here is another incentive for labor; and if we cannot benefit the world by inducing them to reform, we can instruct the people, and they will bring arguments to bear that are vastly more potent than any we can use, for bigots are generally more tender in their pockets than in their consciences.

We can also promote the cause by educating worthy young persons, who will honor and maintain it. When we select a student we need not object to his wealth, providing it does not make him lazy; but brains are even more important. In making a choice, then, we should not overlook the capacity and culture of the one whom we select. Habit, also, should be taken into account.

A small intellect, thoroughly devoted to the work, will accomplish more for the good of any cause, than a large one that takes but little interest in it; but a great mind, well cultivated and conscientiously devoted to truth, is a power that can move the world. Let us unite, then, in securing men of first-class talent to assist us in carrying on this work; and we should be sure to have them educated in our own colleges. Some have sent their students to old fogy, one-horse schools, because they were cheap; but the truth is they are very dear. We should remember that if we send them where their judgments are warped by a one-idea view of practice, we do them lasting harm, dishonor our cause, and disgrace ourselves.

Our college in New York city is to be the best in the land; where our students can obtain a thorough and practical education; and we should feel that we are responsible for its being well sustained.

I see some here to-night who have spent their life's best energies for the good of this cause; and if we neglect to give them the honor that their long and distinguished services merit, we shall fail to perform an act that simple justice claims as due. But coming generations will not forget to honor them, for their names and works will go down to posterity, and long after we have moldered into dust, multitudes shall tell the story of their unrequited toils, for the truths they teach will be indelibly stamped upon all the future.

We have the utmost confidence in the ultimate success of this as of every other improvement that will elevate and benefit the human race. We do not believe that the world will go backward, and intolerance has failed, in every age, to quench the fires of reform. It cannot still the throbbing of the hearts that pulsate in unison with the laws of God.

In coming to the people with our claims for their sympathy and support, we ask no boon that we are not willing to give to every competitor. Freedom to think and investigate, with a fair field for competition for ourselves and everybody else, is the object for which we labor; and we will have it, if we have to turn the world upside down. We believe the principles we have been advocating are the foundation for all progress. Such a spirit animated our fathers in their struggle for liberty. This is the truth that nerved the armies of the Union in putting down the great rebellion. John Bright is inspired by it to labor for the rights of men, and all over the world, wherever man's heart throbs in sympathy for the oppressed, it is because God moves it by the power of this great truth.

HYPODERMIC INJECTIONS.

Contributed by M. M. FENNER, M. D.

I have used the hypodermic syringe for the relief of painful affections quite extensively, and with the most gratifying results. Medicines are absorbed very quickly, when brought in contact with the cellular tissue beneath the skin, and produce a decided impression on the nervous system. All the good effects to be looked for from their use will be established in from three to twelve minutes, and the permanence of the impression may be stated at from twelve hours to two days. Very often, a single injection is sufficient for the entire relief of the disease.

Much care is necessary in making the injection by those who have never done it. My experience teaches me to believe that it is more beneficial when introduced immediately over the part affected; though it would, perhaps, be difficult to explain why it should thus be more efficacious. When this cannot conveniently be done, however, I introduce it about midway between the shoulder and the elbow of either arm, as desired. The skin should be pinched up between the thumb and index finger of the left hand, in order to divert the patient's attention, so as to blunt the pain of the puncture; then, holding the syringe firmly in the right hand, pierce the end *completely through* the skin, at a point near to the thumb of the left hand; then let go the left hand, thus permitting the tissues to relax. The contents of the syringe may then be gently discharged, and the tube carefully withdrawn. As I was somewhat appalled at the pain I might inflict on my patient, by the introduction of the point of the syringe *entirely through the skin*, and otherwise annoyed in my early use of it, I have thought it worth while to be somewhat minute in giving the directions. I have as yet used it only for the relief of painful diseases; though, possibly, its range of application may hereafter be greatly extended; and I have as yet used but one agent, viz., sulphate of morphia. I use this in various painful affections, with the expectation of not only giving temporary relief very speedily, but of permanently curing the affection, if it be one in which the nervous system is the part principally involved. I will now give five out of a considerable number of cases treated.

Case 1. Mrs. C., aged 50. Complaint: Cancer of the womb. I used the injection in the arm and over the sacrum. It greatly mitigates but does not wholly relieve the pain, for about thirty hours. Morphia taken by the mouth gives her but little relief. She prefers to use the injection. I used one-half a grain in solution daily; it sometimes produces nausea, and even vomiting.

Case 2. Mr. R., aged 25. Complaint: Neuralgia in the face, following the extraction of a tooth; very painful. He had spent several sleepless nights. I injected one-fourth of a grain of morphia into one arm. Relief followed immediately. He walked about after leaving the office, was sick at his stomach, and vomited several times in five hours after it was injected.

Case 3. Mr. F. A., aged 40. Severe toothache. The dentist would not extract it, as it appeared perfectly sound, and he had spent several sleepless nights. I injected morphia, one-fourth of a grain, under the mucous membrane of the cheek, opposite the tooth. It relieved the pain, but produced excessive nausea and vomiting. The pain returned, after about twelve hours, which, together with the nausea, made him very miserable, and the operation was not regarded as a success.

Case 4. G. L., aged 35. Neuralgia of right eye. He spent several sleepless nights. He had been taking large doses of morphia and iron from a physician. These, when first administered, gave relief, but this soon wore off, and they ceased to have further effect. When I first saw the patient, at noon, the eye was blood-shot, and the pain most excruciating. I immediately injected one-fourth of a grain of sulphate of morphia. The relief was immediate.

Case 5. John B., aged 30. Passage of renal calculus. The pain had become excessive. At 11 A. M., being absent from town, an Old School physician was sent for. He administered chloroform, in doses of gtts. vii, to be repeated, once in three hours. On arriving, at 3 P. M., I found the patient in extreme pain, such as attends gravel. I ordered chloroform in doses of gtts. xx, repeated every ten minutes, for thirty minutes. He found no relief. I then injected the sulphate of morphia, one-fourth of a grain, over course of the ureter. Within ten minutes, the patient was perfectly at ease. No pain ever returned. I afterward used warm hip-bath, to facilitate the descent of the stone.

Case 1. April 12, 1867. Child aged 18 months. Hydrocele. It has been coming on during past six months. The testicle was of the size of hen's egg. The child was otherwise healthy.

Treatment: I introduced the hypodermic syringe into the middle third of the scrotum; and drew it full of serum. I then detached the syringe from the needle, and discharged its contents; then attached it again, and so continued until the serum was entirely withdrawn, leaving the needle all the time undisturbed. I then filled the body of the syringe with ℞. Tr. Iodini; Aquæ, aa. ʒ ss., and injected this into the scrotum. This solution was also withdrawn after remaining five minutes. The needle of the syringe was then removed, and saturated solution muriate of ammonia kept applied.

April 26. Hydrocele perfectly well. But little swelling occurred; and no constitutional disturbance followed the operation.

RECIPROCATION OF ETHICS AND INTERESTS BY PHYSICIANS AND PATIENTS.

An Address, delivered by request, before the New York State Eclectic Medical Society, convened at Syracuse, June 25th, 1868, by ORIN DAVIS, M. D., of Attica, N. Y.

Mr. President, and Members of this Medical Convention:

I frankly confess that I am exercised with pleasurable emotions in seeing before me those earlier acquaintances whom you and I both knew so well, Mr. President, just eighteen years since, while we were all tarrying for the winter in this beautiful saline city; we imparting and they receiving medical instruction. To-day we meet again, as representatives of the cause we then espoused and upheld, mingling with the present heart-felt congratulations and renewings of friendship, the pleasing memories of the Winter of 1849 and Spring of 1850, when we spread the flag of our medical principles and unfurled it to freedom, science and progress. Providence has dealt kindly by us. Our veteran father, Wooster Beach, M. D., has just entered his rest, leaving his mantle for other shoulders, and his blessings on the good cause he has honored. Time, in its noiseless and rapid flight, has but slightly abated the vigor of our bodies, and yet less the ardor of our minds, still in enjoyment of the love and wisdom of our earlier professional espousals—true, leaving some traces of care in our foreheads and some silver in our locks and far richer golden experiences in the mind—strengthened our fraternal purposes and confirmed stronger in resolutions to carry forward this good-begun work. All hail! friends of the past and helpers in this present; gladly we unite our efforts and labors with that of others who are with us, and who by their presence and scientific investigations will infuse newer life into our organization. Pardon me for this introduction.

We propose, for brief consideration, some of the circumstances of the relation which exists between physician and patient, in order to a better appreciation of the comities which should distinguish their intercourse. We do not propose to consider their rights in a legal sense, but view this relation in its social and moral aspects, and evolve, from these, considerations of mutual duties and interests.

Evidently, this professional relation is a very important one, and whosoever aspires to discharge its functions, it is first a duty to qual-

ify themselves. This contemplates hard study, long continued application of the mind to facts, the mastering of departments of scientific knowledge, a discipline for correct thinking and reasoning, a familiar knowledge of the circumstances of the chemistry of life, and also of its pathological changes; an intimate cognizance of the operations of disease and of the employment of suitable remedies.

I refer to this, simply, to illustrate the importance of this relation, by the time, effort and cost of a *preparation* for the assumption of its obligations. It involves large expenses, commencing with the student's initiative office-studies; the procuring of text-books, and, afterwards, of a medical library; the defraying of those incidental expenses necessarily contingent upon attendance of two or more courses of medical lectures; the purchase of instruments, medicines, and general outfit preparatory to practice, and, finally, his maintenance until he is favorably known as a successful practitioner of medicine; which often consumes the last dollar of an ample dower. In this sketch we have not spoken of the severity of the trials which tax his personal efforts; the difficulties of his studies, the peculiar nature of his investigations; nor have we referred to the obstacles which lie in his way. When he has surmounted all difficulties, when he has acquitted himself with honors from his *alma mater*, and received her commendatory benediction, he must still continue studies, and also be able, at all times, to retain and make available for all emergencies his knowledge, he must daily review them. He has no leisure for rest. He should always be brightly burnished for mental service.

We can easily imagine that after all this outlay of means and pains-taking of study, with many of his qualifications in his head, and acquired resources bounded by his cranium, that he feels mortified at his indifferent reception by the public. The first greeting is not generally very complimentary. His professional *debut* is by no means flattering, though it is usually technically considered commendable. I think the young physician may be pardoned for a little vanity, for he scarcely apprehends that others went through as severe and a similar ordeal. The trial to their nervous system gives them tone, and they are a little proud if not piqued in their attainments after so long and costly a struggle. We do not wonder that he scorns the pretensions of any one who has skulked away in some wilderness and associated with the squalor, filthy habits and remedial imbecilities of the savages, and then claims superior skill as an Indian doctor.

How patiently he awaits his first call. He is *considerately* allowed longer time for reading and for study, and his first years are more for culture than for practice. The sophomoric speculations, college reveries and theories must abate a little; and with the ample opportunities for close observation of the cases he does attend, the better may he prepare for greater responsibilities in the future. He fairly yearns for his labors, and often wonders why he is not better appreciated. This early, experimental period of his life is generally employed in practice among the poorer classes, who are indifferent paymasters; and with them oftentimes he lays a foundation for a skillful reputation, and acquires confidence and experience in his art.

The Doctor of Medicine is a creature of slow growth. His education presents trials and hardships to the mind, efforts which cost pluck and endurance. In mastering these difficulties, he is trained to overcome obstacles, and thus his purpose is strengthened and developed. It is a process which makes him self-reliant; and through rugged experiences he becomes finally thoroughly disciplined for care and responsibility. This preparation renders him useful, giving him a special insight into the operations of human nature, an intimate acquaintance with the human system, both of body and mind, for its amelioration and restoration in sickness. He is thus qualified to enter upon and sustain professional relations. Do not his efforts, self-culture and purposes entitle him to favorable regard?

THE RECIPROCAL CHARACTER OF THE RELATION IS EVIDENT FROM ITS PERSONAL NATURE.

Disease is a condition of individual experience. Our personal welfare we hold in high estimation. On the health of the body hang the contingencies of happiness and usefulness. Often it is seriously endangered. The physician is invited and expected to make critical investigations into all the circumstances relating to that illness. He considers predisposing as well as the exciting causes, hereditary as well as acquired tendencies. Sometimes these inquiries trench upon important events of private history, and these again lead to confidences and to a privileged acquaintance with matters of a secret nature. This may involve the interests and honor of the family and of other families, and the revelations which are thus made are not voluntary except as compelled by the circumstances.

Now in this is there not mutual interest—to the patient, because of the advantage which it confers upon the treatment; to the physician,

because it is in order to his success? It is a confidential relation, and a relation of trust always implies reliance—a reliance which acknowledges probity and character. Therefore, let the physician ever prove as faithful as to a fixed principle. It often occurs under the most delicate and trying circumstances, without promises or pledges, and hence the relation is invested with what should prove to be unsullied honor.

The physician's knowledge does not always imply any greater comity and personal regard to the patient than ordinary business relations establish, *unless there is a reciprocity of interests.*

The medical man, in the ordinary discharge of his duties, learns the constitutional bias of his patients, their natural weaknesses and tendencies, and their proneness to disease. *Character is often largely made up from the conditions of the bodily organs.* In observing this constitutional make-up, he becomes aware of peculiar proclivities and frailties, and can, with almost unerring sagacity, anticipate the experiences which afterwards the lips of the patient mention. Who, then, sensible of the natural depravity of our finite, imperfect nature, of its wayward tendencies, of the obliquity of its dispositions, does not shrink from the mention of them? I sometimes think that there are human likenesses which represent, in disposition, a bestial order. Society seems to be infested with two kinds of moral gorillas; the one is self-conceited, and is afflicted with self-delusion, i. e., views himself with complacency, as a model illustration of rectitude, and looks upon all others implacably as unmitigated sinners. The other, differing in its qualities by total lack of self-conceit, but possessed with hyena instincts, scents the grave for corrupt secrets, and, for its vile nourishment, battens on moral pollution. We instinctively recoil from the presence of such beings! The dove and olive-branch are emblematic in disposition of good will. Into our confidence, and nearest to our person, we admit such persons robed in charity, whose ample and spotless folds thus hide a multitude of sins.

Because it is a personal, it is likewise a prudential relation.

In our individual corporeality, we not only maintain a proprietary possession, an exclusive title and privileges, but it is an interest liable to depreciation. All of our selfish faculties are instinct with care for its preservation. Even the more spiritual faculties are inclined to calculate present and future interests, the conditions of enjoyment, if not the entirety of their happiness, in the status of the body. They take into contemplation the circumstances and contingencies of its

nature, its temptations, allurements and besetments, offset its frailty with suffering and correction, and, with its conditions, limit evil; while under the influence of the vitalizing principles of wisdom and goodness, there are awaiting us in the great future exhaustless supplies of happiness. The finer sentiments are more single in their jurisdiction, more poetic and delicate in their influence, investing our personality with the charms of chastity and purity, and skillfully veiling it in reserve and modesty. These are natural elements of protection, indicating separate personal interests. It is this very identity that also specially interests the physician. Disease creates the relation, and summons professional attention. Disease withdraws the patient from the outside world, and directs his attention to self; bids him leave all busy scenes of effort and of observation, and retire, for quiet and solitude, to the shelter and privacy of his invalid chamber. From this secluded retreat, pain and suffering send their summons forth. The veil of impersonality must now be removed. To the physician must be acknowledged the difficulties. Hoary age cannot longer hide its imprudence, and youth penitently confesses its indiscretion. Rich and poor, high and low—all classes alike—disclose their bodily wants and confide in his skill. The person of the President, and that also of the humblest citizen, are intrusted to his care. The timid maiden, with unfeigned modesty, unveils in his presence, that he may array her in the queenly vestments of health. He is bidden, and enters the private sanctities of all human relations where his skill can avail. He manifests his fealty to humanity, aye, proves it by his loyalty to the persons of his patients. If not from the delicacy of such relations and the prudential considerations they involve, then what circumstances can inspire us with appreciation for the comities and reciprocities of life?

The physician is cognizant of unregenerate dispositions, as well as diseased bodies. That finite thought has its perversions. He moves amidst imperfect realities and the dissonance of verities, as well as in the presence of perfected and harmonized ideals. Human nature is addicted to research and discovery. It is not always solicitous of good, for inquisitiveness may degenerate into curiosity. When simply personal, it is apt to become morbid and offensive. People have a weakness to scrutinize the conduct of others. Sometimes they find something in the habits and personal experience of others with which they try to justify their own. Many persons are prone to manifest a meddlesome disposition, not commendable, concerning the affairs of

others. Thus, instead of reading to acquaint themselves with the history of diseases, they become obstrusively impertinent in their inquiries and observation of their neighbors; inquiring into the special causes which induced the sickness; the nature, location and operation of the disease; probabilities of restoration, remedies employed and effects; the nature and extent of treatment required; when, in fact, they are chiefly trying to gratify some private pique or opinion, or ascertain something which might cast a reflection upon the patient or physician. If this improper curiosity is baffled, good nature is thrown aside; discreditable suppositions, uncharitable conclusions and meanness are allowed; and they give loose rein to unbridled and distempered imaginings. If ill-will extended before only to the patient, it may now embrace the family and the physician also. If the physician was the object, and they do not, by sly and covert insinuation, destroy the patient's confidence in him, then they insinuate that the patient is improperly influenced. And thus this cunning and base spirit, inspired by the genius of deviltry, is indefatigable in its labors and insinuations of wrong.

Suppose, then, that the patient has such an enemy or envious person, whose curiosity is whetted to sharpness. The doctor will be good-humoredly approached and playfully rallied for holding his tongue when no one is in the dark; for being glum and mysterious when every body is informed; insinuations will ascribe his reserve and prudence to questionable interests, or to peculiar personal considerations; he may be approached with carefully studied questions, which instructed malvolence had cautiously prepared; in fact, he may be so artfully plied for some color of an indication whereon either to fabricate an unfavorable supposition, that it may almost seem to him as though the very atmosphere was subtly charged with inquisitiveness to satisfy the demands of prurient curiosity. Is it of no consequence to the patient that the physician be able, from an ethical stand point, to effectually baffle all tactics of unprincipled meddlers?

A proper regard for the proprieties of this relation not only inhibits communication, but the deportment of the physician should disarm suspicion. He should maintain his personal trusts with fidelity, by looks, by demeanor and by appearances. All familiar approaches on these subjects should be met with thoughtful dignity, and indicate our respect and scrupulous regard for the rights of others. In the event that the exercise of his art has led him to an acquaintance with any youthful indiscretions, or, even where inexperience cannot be pleaded

in extenuation, the best advice that the circumstances admit should be given. It is his office ever to be a personal, as well as a professional, friend; and, from the nature of his relation, he is both. His duties are not those of a detective or informer; he is not a public agent, but he is in private employment, charged with private interests. He is neither to admit or imply, or even allow of unfavorable impressions of those in his charge; for to communicate would be in violation of all good faith. In many senses I conceive that professional knowledge ought to be regarded as privileged.

It is a question, for the physician to determine, who may share in his professional knowledge, and what conditions may determine the exercise of his discretion. We should say identity and similarity of interest, intelligence and proper intentions are qualifying conditions. It is generally true that near relatives have similarity or identity of interest. When husband or wife, son or daughter is sick, the near relatives and members of the family are already acquainted with and interested in the issues of illness. An interchange of views is therefore eminently proper; acquiring and imparting valuable information relative to the case, ascertaining facts and history which throw light upon it, results in good to both patient and physician. Whatever subserves the patient's interest it is in the discretion of the physician to disclose; and the circumstances of the case, the unity of interests and the disposition of the surrounding friends will influence him in his use of it.

Many times, *inconsequential* matters are intrusted to him as secrets. Whenever the physician's word or understanding is plighted to their keeping, it is always well to observe the injunction. Our own discretion is barred, unless greater evil to ourselves is implied in our silence. Self-preservation is always a first obligation. If this rule applies to ordinary cases, how much more stringently does it apply in instances involving matters of great personal importance. There are conditional disclosures, and one condition may be that of profound secrecy—that is, of unqualified fidelity to the personal welfare of the individual. It is communicated only as a secret, unconditional as to discretion of disclosure. It is well for him to consider his circumstances, and be careful lest such obligations conflict with his own interests, or involve him in unfavorable consequences. When his pledge is made, estimate carefully his integrity, for he sets his own valuation upon it. Word and honor are at stake. The strength of these are sometimes put to a severe test.

The relation should be maintained on reciprocal terms, because our sense of obligation requires it. The assumption of responsibility by the physician is one consideration, for the issues of life are submitted to his arbitrament. The personal result, the consequences to the patient are equally momentous. What can be of greater importance to these persons? Then, again, the consideration of the circumstances of the physician, that the discharge of these duties is self-imposed, self-regulated. He is governed by considerations which arise in his moral intelligence, in his concern for his patient. For it happens, not only that his inclinations for enjoyment, for ease and comfort are sacrificed, but he often neglects his personal interests and more profitable patients to the undivided care of his charge. Only a little neglect and a little inattention and the patient may die. Besides, he should maintain an increasing interest day by day; sharply exercising his judgment in the choice of remedies, and attentively watching their effects. He must make everything subservient to a recovery. He knows that a wrong opinion or a wrong conclusion may prove fatal. A wrong direction, or even a correct one misunderstood, involves equal danger. Is he not self-consecrated to his patient's recovery? See how patiently he attends, how faithfully he watches, how sincerely and deeply interested and exercised with hope, fear and uncertainties, as he follows them to the very outer confines of existence. And what think you, then, in these most critical moments of peril, with every faculty apprehensive and trained to its utmost tension of interest, will most recompense the physician—when responsibility almost overwhelms his energies, conscious of his imperfections, and yet, amid the trying uncertainties of the hour, he arbitrates for life, not yet knowing what the result may be—what, think you, can then relieve his feelings like appreciation? And, afterwards, what so delicately vibrates all the sympathetic chords of his being as grateful recollections for such services?

It is now nearly a quarter of a century since, and yet I well remember the circumstances of being called in attendance upon a young woman who was violently attacked with inflammation of the lungs. She was delicately organized, and not able long to withstand the active encroachments of disease. This severe malady seemed loth to quit its hold upon her, and, after its severity was sensibly moderated, yet day by day she gradually declined. Finally, my consulting adviser regarded her recovery as more than improbable. Prosperous paying patients had to be neglected, for the urgency of her symptoms required undivided attention. They denoted that a critical change

was near. We endeavored to provide for it, and our interest culminated in the final moment of its arrival. She needed what our anticipations had provided, and also what attentions we could bestow. I will not attempt to describe to you what hopes and fears, what anxiety and solicitude, we felt in those few hours. We thought we saw her breathe her last breath, but, after a few moments of dread suspense, feebly catch it again. The fresh morning air from the widely opened window revived her a little, but, after a few moments, she lapsed again into the death-like state. Again she breathed, and faintly gave signs of life, still tarrying on its limits as if undecided, until the agitation of the fearful crisis passed away, and gentle slumbers calmly and tranquilly imaged the pale, feeble one in the perfect appearance of death itself. She was saved, plucked from the very jaws of the grim monster; and think you not that her gratitude and thankful benefactions for my services have not ever since been a source of lively satisfaction and happiness? Such instances are not unfrequently paralleled, and it is often true that the physician rescues his patient by unselfish devotion and undivided attention, which, in the nature of circumstances, wealth cannot buy.

Thus far we have been considering the relation which the physician sustains to his patient, and the intelligence, interest and comity which distinguishes their intercourse; that they manifest an intelligent and thoughtful regard, founded on ethical considerations. The art of medicine contemplates benefit; its functions are beneficent in their operations, the practical working of good will. It is generally that, in the exercise of this charitable spirit, the physician is admitted to the confidences of the family circle and to the privacies of his patient. In all these respects, he is regarded as a friend in their interests, as a matter of course. We propose to inquire how are these equities and comities reciprocated? How are they requited by the patient? How are the physician's rights and interests guarded? Is society generally interested, its appreciation matured by reflection, the sense of right educated, and thus prepared for a correct estimation of this relation? Does knowledge lead to refinement, and refinement to sympathy; does observation develop a higher sense of propriety, which is to him a shield of defense? Who is jealous of *his* reputation, who sensitive of *his* honor when it is imperiled? Are these things regarded on the considerations of principle, and do mankind act upon ideas of duty and reciprocity as to conserve these principles and interests?

Let us determine our answer from some of the occurrences which happen, we hope not frequently, within the experience of every physician, and illustrate by conduct which is not intended as bearing any ill-will. Suppose that he is requested in attendance upon a case of fever, in a family where he has had no previous acquaintance. He successfully relieves urgent symptoms, and the patient is not only doing well, but making rapid progress to convalescence. Time is an essential condition of all recoveries. The patient may be nervous, restless and over-anxious to get well at once. Because you have afforded so complete relief, he expects to get about immediately. He is very anxious to attend to his business, for he feels that it is a necessary and urgent demand. You have recommended rest, quiet and sleep; the dismissing of all care from the mind. This advice, duly obeyed, with the remedies you direct, in reasonable time, will accomplish a complete recovery. Is it just treatment, and without his knowledge and in his absence to ask in another physician as counsel? Is it not a gratuitous reflection upon his skill and services? Suppose that this physician belongs to the same school of medicine. May there not exist a rivalry in their practice, so that the one would endeavor to treat the case, *if they were dissatisfied*, and would dismiss the other? The last physician called may raise the *presumption* of dissatisfaction because he is *called*, and make no other reflections on the case. This will not relieve the patient's mind as to the correctness of his present treatment. The physician last called might further say, that *he does not wish to say anything about the treatment!* Thus leaving them in greater doubt!

We illustrate the subject again by supposing that he is in attendance upon a patient suffering from an acute attack. This will attain its intensity of manifestation within a given period. In the meantime you are giving remedies suitable to the emergencies of the case. The near neighbors learn of this illness, and feel a solicitude for the patient. They employ their favorite family physician, and they have reason to confide in his skill. On their visit they interrogate in regard to the symptoms and treatment. "Why do you employ Dr. ——; do you have confidence in him? Do you really think that he understands your case?"

Vary the circumstances, and suppose that the neighbors are all agreed upon the choice of physician, but, in the meantime, some of the patient's relatives arrive, who live at some considerable distance from them. There is the startling intelligence of sudden illness, the

bustle of travel, the excitement of feelings on their arrival, and they very naturally express deep concern, are apprehensive of unfavorable results, their fears frighten them, and they clamor for counsel. They are not acquainted with *this* physician, but they know one who *is* skillful, and they seek to introduce him. They would send for him right away. Thus they cheapen confidence in the attending physician (taking advantage of his absence) by the expression of their fears, by their actions and by their remarks, and when he arrives he finds his patient really worse in consequence of their conduct. Is this the treatment which a physician deserves?

Vary the circumstances again, for illustration. Suppose that the patient is afflicted with a chronic difficulty. It has been so subtle in its inception that the patient cannot tell when it began; so gradual in its course that months or years have been consumed in its slow progress, and they have unwittingly postponed remedial attempts until already they are late in the day promising recovery. However, they finally employ a physician, expecting temporary relief, and, perhaps, quickly favorable results. In view of the history of the case, you understand that your treatment must involve constitutional changes—gradual effects from treatment, doing its work more slowly and permanently, requiring time as well as remedial skill to perfect. The case requires only weekly visits, and after making several calls, you accidentally hear, by common rumor, that they had employed another physician. They had made no complaint, found no fault nor expressed any dissatisfaction. True, they had some anxiety; began to think that possibly the medicine was not doing as well as it should; grew more excited and alarmed; and under these impulses, without much reason or reflection, sent for another, without waiting to communicate their new intention, or counseling upon the step they were taking, or even informing you that your services were no longer needed. Indeed, they would be glad of counsel from both, to judge of the capacity and abilities of both by the smooth speech or the relief which was presently afforded. Such seem so *inconsiderate*, wholly innocent of any reciprocity of feeling, unconscious of any interests except their own. Neither are they destitute of good will, but are governed by the lower and palpable perceptions, rather than by generous faith. Do not they need to be taught better than to blunder into such action as this? Physicians need patience, till such will learn better to appreciate their relation with medical men.

There are several ways in which reciprocity is destroyed. Not

merely by lack of appreciation and lack of consideration, but by a wrong estimate. Thus, when the patient sinks the relation to a mere pecuniary transaction, he destroys reciprocity. He reasons thus: "They seek to enter upon this relation for money, and he works for pay; I buy his attention; the laborer is worthy of his hire, and I am willing to compensate him for his labor. If I need his services, I can satisfy him for them." Thus he reasons and thus he reduces all professional considerations to the level of trade. On the one hand he inventories so much stock—as, so much study; so much exertion; so much time and endurance—which are off-set against so much pay. That is all there is of it. A business transaction, governed by circumstances, regulated by price, and concluded by the payment of so many dollars. All the talk about sympathy and honor and principle, all about unselfish devotion and benevolence is molasses to catch flies, and they can't see it. There is no poetry in the relation. When they recover and pay the doctor, they have no farther sense of obligation, except, possibly, the compliment that he is a pretty smart, skillful fellow; think he is getting rich. And the doctor appreciates him, and holds him in respect because he does honorably discharge his indebtedness, which is more than he can say of some others. Then, we may consider another class, who, if we rightly understand them, are governed by the combination of the qualities of cupidity and stupidity, a rather dull complaint. These *'iditys* lead them to regard the physician as an evil, an educated and accomplished freebooter upon society, whom they hold in check. They assume to believe that he is always impatiently awaiting opportunities to lay his schemes of plunder, and that this opinion of theirs serves to restrain him somewhat; that, whenever he is called in attendance, he makes frequent visits, protracts the illness, and charges unmercifully. In their opinion, he frequently kills his patients, *secundum artem*. This lack of confidence is portrayed on the countenance; nothing mutual is perceived in the relation; such a person is so fearfully demoralized that he does not respect you much. But, when sickness comes, you are summoned. If you succeed beyond his highest expectations, and the bill is very moderate, he attributes all this to his well known *very conservative*, uncomplimentary opinions. He is a treacherous adversary who fires in the rear. He has no sympathy for "cut-throat doctors," who get an easy living, and ride about the country. This is reciprocity with a vengeance. It occurs to me, as a *principle* of reciprocity, they

ought not to hold their opinions too cheaply, nor the physician estimate his services too unprofitably.

If society is debtor to the relation sustained by the physician and patient, then persons should be careful not to impair its interests by expressing unfavorable opinions of either. It is often done by unreflecting and speculative remarks, a habit which is very common and reprehensible. This idea I may illustrate by a case in my practice, which occurred just twenty years ago this next fall. A young woman had abdominal dropsy, attended by symptoms which very closely simulated pregnancy. There was cessation of the menses, enlargement of the mammæ and abdomen, caprices of appetite; she would eat pickles and slate-stone; and finally there was stomach sickness, followed by excessive irritability, until it would not tolerate food, fluids or medicines. About this time some of the shrewd, sharp women thought they knew what the difficulty was. They began to indulge in some mysterious, knowing airs, and finally curtly hinted, "*I guess the doctor knows what ails her; he ain't so big a fool!*" These surmises, however, were altogether founded in misapprehension, and the sequel of the case fully justified the girl's reputation. Yet they were loth to believe, for a long time, that they were so mistaken. *The truth seldom satisfies a slanderer*, which reminds me of a saying, that "a lie will travel a thousand miles while truth is putting on her boots to overtake her!"

One more illustration on this point, which occurred something more than ten years since. It is generally known, I believe, that I opened a private institution for the reception and treatment of invalids at Attica, N. Y., and it enjoyed the experience of all similar institutions in exciting curiosity, especially among the neighbors. It was a new thing. When imagination acts upon imperfect data, wrought upon by hints and mysterious surmises, its extravaganzas are perfectly irresistible! The smartness and anxiety all turns on, consists in surreptitiously finding out its secret of success and all the minor details of personal treatment. After a lapse of time, however, this curiosity began to subside, but one elderly lady of high social position, greatly respected and beloved, retained a little pique, the sequel of its contagious operation, and yet very likely without conscious wrong intent, dropped this remark: "*They do say that when Doctor Davis makes his regular daily visits to his patients, he turns the key of the door of their room.*" This was undoubtedly true, but what about the implied insinuation, for "It is the little

foxes that spoil the vines!" Two or three years afterwards this mother in Israel sent for me. I found her in her own chamber, stricken with disease, for which she desired my skill. Her case required a critical investigation, and, although in her own house, alone in her private room, where none would enter unbidden, yet with instinctive propriety she bade me first turn the key to both doors guarding the approaches to the invalid chamber. But what a practical answer, thought I, to her own previous remark of "*They do say*," &c. Circumstances alter cases, and teach us some lessons in charity. Then should we not be careful of this relation?

It is equally incumbent on society to preserve the morale of professional relation.

It is a matter of peculiar interest to all, and upon it the good faith and the needs of the moral and social relations of life vitally depend. It is indisputably true that physicians are foremost in efforts for the public benefit and improvement of society, foremost in promoting literature and science, foremost in establishing institutions for the deaf and dumb and asylums for orphans, for the blind and deranged, foremost in the cause of temperance, in the cause of hygiene and physiology, infusing its liberal spirit, consonant with the genius of our free institutions, into all relations of life. Yet it is not their relations to temperance, to the fine arts, to philanthrophy or to the free institutions of the land which are most valued. Prominent in all these, nevertheless they contribute more to the general welfare in their professional capacity. Restoring the sick and preserving health is their office. We have already shown that, to do this, they sustain a personal and delicate relation to society. It is maintained, not by law, but by faith and charity. It is sustained by comities—intelligent and moral considerations. The physician adapts himself to the wishes and feelings of others, and discriminates their mental condition. He conforms to their views of propriety, and enjoys their confidence. These circumstances of the relation constitute some of the reasons that it is most liable of abuse. It is constantly exposed to gross attacks. These are usually made in a sly, covert manner, by innuendos from secret and irresponsible sources. He is assailed by suspicions, by prejudices, attributing to him bad intentions or improper motives and sentiments; thus, even if his character is good, giving him a bad reputation. Always sly, sometimes plausible, indirect, cowardly and treacherous methods distinguish this kind of malignity. It is a sad reflection that there are always some who

seem to delight, with a hellish zest, in the vile work of defamation, tainting the atmosphere, like a pestilence, with detraction, polluting every breath with their defiling calumnies. Sadder still, when envy rankles in the professing Christian's heart, or revenge blunts his conscience, and, with the instincts of the maddened adder, he blindly strikes at what he does not see. *These things exist in the constitution of the human heart*, and every physician must meet his share of such vicissitudes. They equally concern the interests of society. What physician has not reflected upon his mission, when dangerous sickness was rapidly wasting away the form of his patient, already helpless, dependent, and he has, by remedies and faithful attention, restored him again to health. No human arm was then like his, no other human instrumentality could so well avert the dangers of those perils. And yet after such an achievement what physician has not been deeply mortified at the cool indifference and stupid neglect from such persons when he was unjustly assailed? If these can forget their gratitude, surely society may. Ah, it is this neglect, this indifference, which is destructive to our finer sensibilities, weakens our notions of ethics and makes void those comities and reciprocities which dignify, beautify and enoble professional and social intercourse.

The physician belongs to all classes, without distinction, for he may be the chosen of all. He responds to the wants of humanity, and humanity should as promptly reciprocate his. He cannot select his patrons, for the evidence of suffering is the only *reference* he requires. He is lawfully commissioned to go any and everywhere, wherever he can benefit human beings. If the welfare of society is largely intrusted to him, then society should regard his professional well-being. In reciprocity for his zeal, devotion and labors in behalf of others, let them manifest a personal regard, a more appreciative and grateful sense for the responsible relation which he sustains.

In conclusion, I may express my hopeful convictions, that on every subject the human mind is influenced by some rule of progress, and that as we advance in knowledge and art our dispositions for goodness enlarge also. Without question or doubt there is an increasing sense and belief in the fraternity of man, in the real unity of his interests everywhere. It is in the unlimited receptiveness of mind that we have our inducements for charity and hopeful efforts. True, that now commerce and mechanics engross our western energies, but, surely, these even tend to higher developments, and the not far dis-

tant future will yet reveal our latent wealth in artistic and philosophical genius. Does not every advance magnify humanity, invest it with greater capabilities and develop grander endowments, and take man a step forward in his infinite relations? If my ideas savor of optimism, it is only because I trust in God. Believing in Him I believe in humanity also. Do we not include all the infinite perfections in the principle of love? Then, should we not hold humanity in the charitable embrace of this principle? Should not every human relation be hallowed by its influence? Therefore it is that I hope, that in the progress of our race, with the richer unfoldings of knowledge, will be vouchsafed to us also larger measures of charity; the condition of our prosperity here, and the true foundation for greater happiness in the reciprocation of all the interests and duties of life.

HYPODERMIC MEDICATION.

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There are axioms almost coextensive with the formation of man, though his intuitions hardly rose above the instinctive faculties of the animals, and have steadily held the mind down as with a continuous chain to the present time. And, whatever may be the theories of the scholar, reason as best he may, he becomes confounded amid his own astuteness and silently falls back upon the ruder original thought. This inherent principle does not rest with man only, but extends to animated existence where instinct bears sway, though circumscribed in its sphere of action in this respect. Self-protection and preservation comprise this Grand Law. Therefore, it is a well-established principle that the healing art, resting upon this basis, is not divergent, necessarily, from General Laws in sustaining its pretensions as a science, or that nature in this respect is as immutable as in other respects wherein instinct or reason becomes an actor. Then, stepping from instinctive action, and from the semi-power of reason in the rude state of man, up to that of intelligence where he in his refined state holds responsible action, and where his reason must rest on a truer basis, and where the results that follow must be to the credit or discredit of the actor, how carefully every subject-matter pertaining to the preservation of life and health and the alleviation of the pains pertaining thereto should be canvassed.

The proper test of medical and surgical virtue is, whether the assimilation of medicines into the animal economy, and the surgical operations performed on or introduced into the animal organization, conduce to a greater good by the amelioration of disease and pain and the prolongation of life. Then, the inquiry arises, what utility hypodermic injections have upon the system, and to what extent they can be carried with the present safety of the patient in view, and what is the probability of their final results? It is not that a theory or practice is new that makes it fixed as a fact, thus establishing it as the guide to future actions more than a theory of remote origin proves it to be immutable in truth.

The process of the introduction of medicine into the system for the alleviation or cure of disease, which characterizes most nearly the assimilation of nourishment for the maintenance of organic matter,

thus, comparatively, conducting each element chemically to its true sphere—or if the remedies be intended to operate directly upon the nervous structures, the great centre of assimilative action, the stomach, containing the par vagum, and this nerve being in communication with others which maintain a common role with the sensorium commune—the approximation most nearly to the assimilative and nervous law of action seems to be the one of nature for the restoration of its lost balance power. This hypothesis is seemingly nowhere more apparent than in the *filamentum villi*, where *endosmosis* with its smaller twin helpmeet, *exosmosis*, constantly carry on a variety of action for the fulfillment of assimilative existence. Is the same process carried on from the external surfaces directly to the internal, and do the same results follow from external action? While internal and external absorption are at work for the maintenance of animal nature, it appears that the villi of the intestinal canal as well as the derma, including the mouth and its appendages, are *impervious* to external air. While this fact is, seemingly, so positively fixed in natural law, for the maintenance of its own creativeness, that slight variations therefrom necessarily produce, to a greater or less extent, functional derangement, yet, the absorption of external moisture is constantly going on from the "outer to the inner man." This choice of the reception or rejection of bodies by the skin when in the original state of rest, or the inherent attraction and repulsion, if it may be so termed, so peculiar in itself, stand as one of the great wonders of creation and protective power.

The action of the atmosphere, when in contact with denuded surfaces, or when introduced into cavities, conduits or absorbents originally free from it, will be considered here. When air comes in contact with recently excoriated surfaces it produces excessive pain from two causes, one from the extreme pressure upon the lacerated nerves, the other from the enforcement of it into the unprotected mouths of the absorbents; thus causing their *impingement*, and the contraction being held upon the nerves of those conductors; therefore the irritation is increased above the air pressure.

If the action of fluids, gases, aëriform bodies, or solid substances, be greater upon the external surface, or if they approximate nearly to the internal force of the same, the endosmosis must become reversed; thus the larger organization of absorption becomes the smaller, while exosmosis holds more than the balance power, and performs the same relation which endosmosis originally held to it,

both being reversed in action. But the action of air particularly, as well as some of the medications, is noticeable on surfaces which take on a chronic irritation, as scrofulous ulcers, chancres and wounds which suppurate, where the success of a cure depends upon *compression in a manner so as to entirely exclude foreign substances.* And the same process holds in a majority of recently denuded surfaces, from epispastics, phlegmonous erysipelas and other inflammations. Whatever air enters the circulation externally by such exposures, does so without being *disintegrated*, or, its oxygen not being separated from the nitrogen, therefore it cannot act otherwise than as an irritant, if not as a poison. So, also, the enforcement of tangible substances, without the process of assimilation, cannot fail to produce constitutional derangement. A similar result occurs where air is forced into the areolar tissue, the pleura, or the thoracic cavity, especially in the thoracic cavity and pleura, not only its bulk, but the entire failure of its *disintegration* causes it to act as a perpetual irritant. So when it is ensconced within the areolar tissues, a larger bulk must be constantly retained than what is capable of being converted into the circulation, therefore the irritant is constantly at work within its walls. Again, when air is thrust between the skin and muscular tissues, and the passages closed where it entered, it is remarkable how long the tumefaction will remain, proving the extreme reluctance with which the absorbents take up the aërial composition, and with what steadiness local febrific action is continued till long after the disappearance of the tumor. Therefore, in employing hypodermic injections for a hygienic, prophylactic or therapeutic purpose, similar laws of action must be considered that transpire from the introduction of medicines into the stomach, or into the lungs by inhalation; that is, results equal in effect are to be anticipated. But this cannot rest even upon this hypothesis, for a more potent result must be accomplished with less medication, in shorter space of time, with less inconvenience to the operator and to the patient, with increased surety of a success, with results as harm less at least as in the original process of medication, or there is nothing gained over the former. And, if the latter process be conceded as safe in a prudent administration, and equally as efficacious or more so, it necessarilly requires long experimental observation to reach a true measurement of quantities of medicines in the fulfillment of the theory which is already gained by their introduction into the stomach and into the respiration. Therefore, the process in

the hands of the tyro, or when under the control of the careless or unobservent, or when controlled by the labored thinker, if he possess less immediate acumen than his more fortunate brother, it might still be questioned if the original introduction of treatment might not be preferable. But, in considering further the integration of the aëriform body upon the system, without the power of its component separation, if it exists in the hypodermic syringe in the operation, it necessarily follows that a proportionable quantity must be expelled with the medicated fluid, and air may enter the cavity, though not in the syringe, unless the operation be unskillfully performed. As the action of external air has been shown under varied circumstances, the inquiry arises, to what extent its forced introduction upon and into the absorbents, by being held in menstruum with the medication, can be carried without harm to the recipient. It may, perhaps, be urged that so small a quantity as would be pushed into the circulation by such a process, or by being retained in the apparatus as a separate body, the smallest harm could not arise from it. But if the medications produce results of a potent character, if correctly applied, it follows that substances of the same measurement of quantity, if incompatible to the condition in which they are placed, must produce adverse results in the same ratio. If it be a fact, which high authority maintains, that the *blood-vessels* have their *absorbents*, and which is urged as necessary in the fulfillment of the law of sustenance, it can be more readily seen how external bodies, which are incapable of assimilation or absorption, would act deleteriously in the system. This, as has been urged in reference to the lungs, and the lungs being the body-guard to the sanguineous circulation, nothing can enter but what is capable of assimilation and absorption by this great channel of the body. If one particle of *integrated* atmosphere could pass the pulmonary tissues into the arterial circulation, the same effects would be seen, and similar results would follow that arise when it is forced into the veins or arteries from external causes, namely, great prostration or instant death.

In following the doctrine of transfusion with such tenacity, formerly, in the hope of making it one of the cardinal points in the science of medicine, though it necessarily failed from its unhappy results, supposed to be the incompatibility of the blood from the veins of one individual to the veins of another, thus causing the great mortality, and, in many instances, with unlooked for suddenness, it may, per

haps, still be considered in doubt whether transfusion itself, though not capable of being established as a science beneficial to mankind, was the direct cause of immediate dissolution. The fact that certain substances (iron for instance), which are readily assimilated into the system, and which the veins and arteries readily absorb, and which, when injected into the sanguiferous circulation in moderate quantities, do not produce instant deleterious results, strengthen this view of the question. It is hardly supposable, in this connection, that the sanguinous fluid of one individual could be so incompatible to the venous and arterial circulation of another as to produce such untoward calamities, whatever its results might have been by continual absorption, or by being retained as a local irritant in part. In the operation for transfusion, in many cases, it is reasonable to suppose that it may have been carried on in such a manner as to permit the introduction of air into the sanguinous circulation, thus suddenly *forcing it to the heart in its integrated state;* hence the sudden deaths, or a lingering agony and a final dissolution. This conclusion is still further strengthened from the fact that at the time of the *mania* for transfusion, it was not a question that the atmosphere had any deleterious effect from contact with the blood in the circulation; therefore the operation was performed with impunity, as to any extraneous considerations. Thus all unfavorable results from transfusion were attributed to that cause only. Therefore, may it not be assumed that the same causes operated then as to the introduction of the integrated atmosphere into the circulation of the blood to produce prostration and death, that have more recently come under the observation of some of noted modern authors. If it be, as is well attested, that air can penetrate the uterine venous and arterial channels, the vessels becoming flaccid from extreme hemorrhage, and to this flaccidity might be added another condition, at least, of great consequence, namely, *eclampsia*, the prostration following the spasmodic action, leaving as great uterine relaxation, many times, as where hemorrhage has occurred, but hemorrhage not taking place from the fact of the extreme pressure of blood to the chest, head and superior extremities. In the latter condition, the expulsion of air from the uterus, on slight sudden contraction, is as perceptible as in the hemorrhagic prostration; and in many instances, aside from the spasms, the symptoms are nearly parallel—the original phenomenon of the effects of transfusion is in part accounted for. Another fact presents itself here, namely, that the hypodermic action, when ap-

plied to the acromial, sternal, scapular, interscapular, lateral and subclavian regions, produces its results much more rapidly than when applied to other regions, and the effects are presumptively much greater. What is the cause when the patient is placed upon the operating table, and the hypodermic tube thrust into or near the lateral portion of the sternocleido mastoideus muscle, that makes him roll from the table to the floor at the feet of the operator, dead, without the contortion of a muscle? Is it incidental? Would the same results have followed with equal rapidity if the operation had been performed upon the inferior extremities? If an equal quantity of the medicated fluid used in the syringe had been taken into the stomach, is it to be supposed that the same catastrophe would have occurred? Whether the fatality in this individual case, referred to for an illustration, arose from air in the circulation of the sanguinous vessels, or from another cause which will be mentioned hereafter, could only have been ascertained by post-mortem examination, which developed *integrated atmosphere* in one of the ventricles of the heart. Then, without further reference to untoward results that arise from air within the circulation, it must be readily seen that the nearer the operation is to the sanguinous centre—if it be unhappily connected with it—the greater the risk of a fatal and sudden issue. Thus much in consideration of the absorption or the introduction of air into the animal functions in its *integrated* state.

While writing thus, a young friend calls attention to a recent article in "The Nation," entitled "THE TRANSFUSION OF BLOOD," in which, at least, there is one valuable hint in addition to the argument already presented, namely, in detailing the original process, the author says: "The objection to this method is, the clots are very sure to form at either end of the tube, where the blood is necessarily for a greater or less length of time exposed to the air, and thus introduced into the circulation, are apt to produce death." The stress of the writer's argument rests on the introduction of coagula into the venous and arterial channels, and this is seemingly plausible, for, when blood coagulates, the fundamental principle is lost; and it would require great credulity to believe, that, if it be introduced into the sanguinous circulation, it could be restored to its former condition. But an inquiry arises from his assumption, whether, if air be introduced into the circulation by the act of transfusion, if the primal blood be transfused at the same time that coagula would take place within the sanguinous canal to a greater or less extent, depend-

ing on the quantity of the air introduced, as it would be in contact with it; thus, if the patient survive long, the coagulation would be constantly going on, as the air, in contact with the blood within the circulation, cannot be separated componently; therefore, like the corpuscles, which float in the blood-plasma, it would be constantly in motion forming new coagula. This, in a measure, may account for many of the slower cases of dissolution where transfusion had been performed.

Then the impressions of the air and of medications upon the nervous plexus and nervous centres or the near approximation to the ganglionic action, as well as the general results of nervous force, absorption and secretion constitutionally to be prognosticated from them under hypodermic action, will be considered. As the impressions upon the superficial nerves have been discussed when examining the external effects of air upon the body, it must follow, that, in a great measure, the impressions are increased or lessened in effect according to the distance of the communication, if not, why does the surgeon use such circumspection to avoid the puncturing or separation of the *plexus or ganglionic nerves*, while he *thrusts or cuts with a bold hand* at a distance from them?

Hooper, in the course of his argument upon the *organic consistency* of the nerves, among his conclusions of what it does not seem to be, says: "Nor is it oxygen or hydrogen, nor azote, for the first very much irritates the nerves, and the other two suspend their action." Here is a point as to invisible matter disintegrated from its original compatibilities; in one case becoming a powerful irritant, while in the other they became two most potent sedatives, and yet all three, in their primate state, are strictly necessary to the sustenance of animal life.

Then the introduction of these gases into the system by a hypodermic process that would have a direct communication with a large plexus or ganglion of nerves, would be much more potent for a good or evil result, instantaneously, than if pushed upon nerves at a remote distance. So with tangible medications, their compatibility or incompatibility to the external absorbents, and the irritation or soothing effect upon the cutaneous nerves, becomes the test in some measure to good or bad results, depending on the distances from the great vital centres. Narcotine, for instance, if placed upon the nose of a quadruped, or reptile, or upon the beak of a bird, instantaneously produces a result. If applied in a similar manner to the inferior

portions, will the same results follow? And if the same be thrown under the skin at a remote distance from the nerve-centres or absorbents, will the impressions be more steadily marked, or is the fatal influence at once developed, as in the former cases? There is a point here which, perhaps, it will be well to keep constantly before the mind, namely, the proportionate doses administered by the stomach, or introduced by the syringe. The doses of morphia, for instance, for adults will range from one-sixteenth to, in severe cases, one-half grain. If the same amounts be introduced under similar circumstances by the skin, are the same results to be anticipated if remote from a plexus or ganglion of nerves? Is it not a fact that, in a majority of cases, the quantities used by the syringe are equal to and many times much larger than are ordered to be taken into the stomach? If this be so, as has been remarked heretofore, it is difficult to see where anything is gained over the original process of administration of remedies. But it adds another consideration, namely, that if the medicines are used by the syringe in greater quantities, there must be a greater effort of the system, and a longer time occupied to eliminate the remedies. While the effects, if in direct approximation with the nervous force or vitality, might be altogether too powerful for favorable results.

Then this reversed force upon the nervous system, acting as a sedative narcotic or as an excessive irritant, like a powerful galvanic battery, depresses the constitution—and it may be suggested whether results are not apt to occur similar to those wherein the atmosphere becomes involved with the blood. But if a favorable prognosis arises—which does often as to the mitigation of pain, and a partial resolution—yet another inquiry presents itself, namely, whether it is not in many instances like the effects of an *asthenic*, the impressions being of long duration, days or weeks, doubt resting upon the mind of the medical adviser whether the result has been to the benefit of his patient or otherwise; his charge all the while, perhaps, protesting that "he does not now feel sick," but still continues to consult upon his case, as "he is anxious to go about his usual avocations." Now it may be observed in such cases that the valetudinarian, though capable of some small exercise, is of a pale, sallow countenance, accompanied with an anxious expression; and if his tongue be examined it will be observed that it is heavily covered with a white, tenacious mucus; while the arterial volume of the system indicates marked degeneracy.

The effect of hypodermic injections in scrofula, and in other ailments where the veins become varicose, will now be examined. The point of interest in this respect is whether such a process is primary or secondary in its curative action. If it be intended as primary, or absolute, how does it compare with other processes of treatment? And how many cases, comparatively, of the whole number that have been under treatment, are there that have been cured finally without resorting to other measures? The fact that great stress may be laid on a certain curative process is apt to mislead, oftentimes, by its being considered as the desideratum so desired to be filled. But when it is followed with avidity by its votary, after a time he halts, and wonders because he has not met with a success. Then he repeats, thinking the fault is in himself, and a greater length of time is absorbed than at first, that he may be doubly sure of a cure. Now he is at a dead lock—he has failed. Something else must be resorted to, and with great effort and long continuance he succeeds, partially or in full, in his designs. But the wonder to the disinterested medical observer is, that the actor of this episode *remounts his hobby, and rides it with as good a grace and with as much dignity* as if he had not met with a disappointment, ready at any moment to be again the dupe of his prejudged theory. The argument is: "Plug the veins, and thereby cut off the circulation, and the cure will be complete." When and how? "Why, if ulceration exists, use adhesive straps, so as to exclude successfully the atmosphere from the excoriated surfaces"—which process has been referred to in a preceding page—"and continue them until such a time as a cure is perfected." But what length of time will be required that a cure may be safely prognosticated? If the plugging be the key to the cure, why use the *auxiliaries with such tenacity* for six or nine months after? It is remarkable, indeed, that the treatment must be continued for so long a time in order to reduce ulcerous inflammation, when it all arose from simple venous derangement, and that was subdued at once by the hypodermic injection of iron, which effectually checked the circulation. So, also, when the veins are varicose without external leakage, and the limbs are badly tumefied, the roller bandage is resorted to and continued as an "*auxiliary merely*," though the plugging is the same as in the ulcerations.

Another question of importance arises, namely, whether this condition of the limbs is local in character, or whether it is inherent or constitutionally acquired. But if "plugging the veins" be converti-

ble into a curative basis, when applied to the extremities, there are other conditions of the system which would test its efficacy still further as the basis of action. In goitre it is not uncommon for the jugular veins to become varicose, and the inquiry is, whether plugging those veins will cure the goitrous tumor. Is the varicose condition of the veins the cause of the goitrous condition, or is this condition the cause of the varicose state? Why not plug the tumor instead of the veins, and trust to auxiliaries for months after to cure the blood-vessels?

In elephantisis—where the varicose state not only pervades the limb but the turgidity may extend to the pelvis, and, in fact, to some extent it involves the body—if the origin of the disease be in the veins, the consideration of a cure should be directed exclusively to them; therefore, hypodermic injections would be indicated, by cutting off the circulation of venous blood, thus establishing a radical cure. But is this disease local in character? In instances of apparent cure, by local as well as constitutional treatment, the tumefaction will, in many cases, be gradually transferred to the hitherto unaffected limb, to one of the superior extremities or to the body. But if this does not take place, and the affected limb be left to itself after a cure is supposed to have been perfected, the disease, sooner or later, will reappear in its former force; clearly indicating that it is not of local origin. And if amputation be resorted to, the manifestation of the disease in other parts of the system, to the surprise of the surgeon, indicates it to be constitutional in character. This condition of the system being apparently parallel to the varicose state and ulceration, precedently noticed, the process of healing the morbid exudations, and reducing, by external means, the tumefaction of the limb and enlargement of the blood-vessels, is much the same. But the accomplishment of this object is much easier than it is to control this condition in any case thereafter. The skill and power of the physician will be taxed to their utmost, and he will oftentimes fail. There are still a variety of conditions wherein a varicose state exists (especially in females), which would test the admissibility or non-admissibility of hypodermic injections in such derangements of the system. But the cases presented are deducible as to the local or constitutional system, the diagnostic as well as prognostic state being prominently practical before the observer. In order to test a theory in the practice of medicine, a full comparison of good and bad results of all the cases treated should be made; but, instead of this,

it is too often that this and that case are thrown aside, where there have not been good results, as not being proper for comparison; while other cases, where the impressions have been fair, are lauded and settled upon as establishing a theory.

Are hypodermic injections, then, to bear precedence in the healing art? Or are they to be held secondary to other treatment? But, if they be held as primary or secondary, they rest with the better judgment of the physician as entering an unexplored field.

ONIONS—A CAUTION.

Onions should not be used as food during the summer months, or during the prevalence of epidemics. According to chemists and medical writers, they contain an acrid volatile oil, sugar, gum, albumen, woody fibre, acetic and phosphoric acids, phosphate and citrate of lime, and water. The vegetable does not agree with every person, especially dyspeptics; in such cases they favor the production of flatus; boiling, however, in a great measure, deprives them of this peculiarity. The following, from Colman's Rural World, by John B. Wolf, is well attested. Our experience for the past thirty years corroborates the remarks, and we venture every physician of extended observation will assent to them:

ONIONS AND EPIDEMICS.

"In the spring of 1849, I was in charge of one hundred men on shipboard, with the cholera raging among them. We had onions, of which the men ate freely. Those who did so were soon attacked, and nearly all died. As soon as I observed this their use was forbidden. After mature deliberation I came to the conclusion that onions should never be eaten during the prevalence of epidemics, for the reason that they absorb the virus which communicates the disease; also that the proper mode of use for them is to be sliced and placed in the sick room, and replaced every few hours.

"It is a well-established fact that onions will extract the poison of snakes. This I personally know. Some kinds of mud will do the same, blue clay, for example.

"After maintaining the foregoing opinion for eighteen years, I have found the following well attested: Onions placed in a room where there is small-pox will blister and decompose with great rapidity; not only so, but they will prevent the spread of the disease.

"I think as a disinfectant they have no equal, when properly used. Let us have all the facts bearing upon the subject."

L. STANTON.

COPENHAGEN, New York.

THE ERIGERON, OR FLEABANE.

Read before the Eighteenth Senate District Eclectic Medical Society, by L. STANTON, M. D., of Copenhagen.

Mr. President and Gentlemen:

I desire to call your attention to the use of the Erigeron canadense, better known in the rural districts by the name of pride weed, fleabane, colt's tail, &c. It is indigenous in almost every county in the State. It is an indigenous, annual herb, mostly found on sandy, or lime rock soil, growing from two to three feet high, flowering in July and August; the flowers white, or slightly tinged with yellow, and leaves very small and numerous,* "with high branches, furrowed, and bristly-hairy stem." "It has a feeble but pleasant odor and a sub-astringent taste, with some acrimony, and yields its properties to alcohol, or water by infusion."

Like many other articles to be found in our Materia Medica, it is but imperfectly understood and appreciated, although our chemists and botanists are constantly investigating and adding to the general stock of knowledge aiming at the amelioration of the condition and sufferings of mankind. And every physician, if observing closely and carefully passing events—I say, if faithful to his calling and fellow man—is constantly adding knowledge to knowledge; investigating from day to day; and, by comparing notes, discussing freely and frankly his observations with others, particularly his brethren in the healing art, the science of medicine and the art is constantly receiving accessions to its volume and strength to combat disease.

This plant should be gathered when in bloom, and carefully dried. It may be used in infusion, or the essential oil with alcohol. The infusion will often be found preferable in diarrhœa, diabetes, dropsical affections and painful menstruation, particularly where there is much thirst and membraneous inflammation. The infusion may be given to adults in from two fluid ounces to one gill, from three to six times in twenty-four hours, sweetened with refined white cane sugar.

Although Prof. King, in his American Dispensatory, says it "is slightly tonic, with more active diuretic and astringent properties," I am satisfied it also possesses strong diaphoretic properties, and is, withal, a good nervine, or mild anodyne. The essential oil was for-

* King's American Dispensatory.

merly much used internally for hemorrhage of any character; but I find that the oil, like most essential oils, is too active for internal use, and is not so readily absorbed or diffused. We may get the specific or local effect, when locally applied, as directed in the Dispensatory, to "hemorrhoids, boils, tumors, bleeding from wounds," &c. For internal use the tincture may be given; or dissolve one ounce of the oil to one pint of alcohol, to be given in half to teaspoonful doses, in three to four fluid ounces warm water, sweetened like the infusion and repeated at like intervals. I have found, from long experience and observation, that this is one of the most efficient remedies in diarrhœa, dysentery, *chronic sore throat*,* uterine hemorrhage, flatulency, sinking sensation at the stomach, fluor albus, uterine weakness generally, catarrh, bronchial difficulties, and all glandular diseases. In acute or urgent cases it may be repeated often, say from ten to fifteen minutes, if required. Taken pretty warm it produces perspiration immediately, seeming to possess tonic, diaphoretic, styptic, absorbent, diuretic, astringent and nervine properties. By its soothing and diaphoretic action it is valuable to prevent fits and cerebral disturbance in membranous and intestinal irritation.

Its use in catarrh may be alternated with fever drops made of oil solidago serotina (fever-weed), one ounce of the oil to one pint of alcohol. Dilute one teaspoonful with two gills tepid water, and snuff a small quantity up the nose two or three times per day, particularly in the morning. The operation may be somewhat disagreeable to some at first, but they will soon cease to complain of this. Alternated in this manner with the alcoholic preparation of the erigeron canadense, and the internal use of the same, I have known the worst forms of catarrh and cough cured in a few months time. I would here remark, that, in all cases of uterine weakness, particularly fluor albus, both preparations should be used alternately, per vaginam, every day, prepared and diluted as directed above for catarrh. But as other treatment and agents are essential in the management of uterine weakness, I will defer further remarks in that direction for the present.

* In sore throat I would say the remarks of D. E. Smith, M. D., of Brooklyn, in the June number of the Eclectic Medical Review, are to the point: "The manner of using it is, to take a camel's hair brush, dip it into the oil and paint the fauces, and all other adjacent parts involved. It should be done after eating, or at bed-time. No food or drink to be allowed for an hour, at least, after the application. After using the brush, it should be placed in cold water, and allowed to remain there until used again. Without this precaution the brush becomes stiff and useless. Before again using the brush the water should be absorbed from it, so as to prevent diluting the oil."

ORGANIZATION OF THE ECLECTIC MEDICAL SOCIETY OF THE THIRTEENTH AND FIFTEENTH STATE SENATORIAL DISTRICTS.

In pursuance of the following Circular, issued at the instance of the Eclectic physicians of the Thirteenth and Fifteenth State Senatorial Districts, a Convention of said physicians was held in the city of Albany on Wednesday, the 10th day of June, 1868:

CIRCULAR.

To the Physicians and Surgeons of the Eclectic Practice of Medicine, and all others interested in the progress of Medical Reform, in the Thirteenth and Fifteenth Senatorial Districts of the State of New York:

You are hereby earnestly requested to meet in Convention, at Albany, on Wednesday, the 10th inst., at 10 o'clock A. M., for the purpose of organizing a society auxiliary to the Eclectic Medical Society of the State of New York, and to transact such other business as may properly come before the meeting.

(Signed) R. J. BURTON, M. D., Albany.
R. HAMILTON, M. D., Saratoga.
H. PEASE, M. D., Schenectady.
O. H. SIMONS, M. D., Albany.
A. W. RUSSELL, M. D., Albany.

The call was promptly responded to by the majority of those to whom the circular was addressed.

The Convention was called to order at 10 o'clock A. M., by Dr. Russell. Dr. R. J. Burton, of Albany, was elected Chairman *pro tem.*, and Dr. O. H. Simons, Secretary.

The call for the meeting was read by the Secretary, and the object stated.

On motion, it was ordered that the President appoint a committee to draft constitution and by-laws. Doctors Russell, Hamilton and Pease were appointed such committee.

On motion, an adjournment was had till 2 o'clock P. M., Dr. Russell first having extended an invitation to dine with him, which was duly accepted.

The Society was again called to order at 2 o'clock P. M., Dr. R. J. Burton in the chair. The minutes were read by the Secretary, and adopted.

The committee on Constitution and By-Laws reported the same. The report was accepted, and, after several amendments, unanimously adopted.

The Society then proceeded to the election of permanent officers, which resulted as follows:

President, ... R. J. BURTON, M. D., Albany.
Vice-President, ... R. HAMILTON, M. D., Saratoga.
Secretary, ... O. H SIMONS, M. D., Albany.
Treasurer, ... H. PEASE, M. D., Schenectady.

Censors—A. W. RUSSELL, M. D., Albany; E. H. MILLINGTON, M. D., Saratoga; H. KING, M. D., Saratoga.

Opportunity was now given for those present to sign the constitution.

Dr. Pease, of Schenectady, submitted a preamble and resolutions, in relation to the death of Prof. Charles T. Hart, of New York, and recognizing in it the great loss sustained by the profession. Adopted.

A communication from Dr. Paul W. Allen was read by the Secretary, and made part of the proceedings.

Dr. Pease read an elaborate paper on the Duty of Eclectic Physicians, for which he received the thanks of the Society.

On motion, the Secretary was ordered to transmit a copy of the proceedings to the Secretary of the New York State Eclectic Medical Society for publication.

After some further deliberations, the Society adjourned to meet at the order of the President in September, 1868.

O. H. SIMONS,
Secretary.

FIRST ANNUAL MEETING OF THE ECLECTIC MEDICAL SOCIETY OF THE EIGHTEENTH SENATE DISTRICT OF NEW YORK.

The Society met pursuant to adjournment at the American Hotel, Watertown, July 10th, 1866, and were called to order by the President, Dr. Lyman Stanton. The minutes of the previous meeting were read by the Secretary, and approved. After a general discussion of various topics pertaining to the practice of medicine and good of the profession, the Society adjourned to 2 o'clock P. M.

At 2 o'clock P. M., the meeting was called to order by the President, who entertained the Society for a time with interesting and appropriate remarks on the welfare of the profession, and the best means of advancing the Eclectic practice of medicine.

The reading of the Constitution and By-Laws of the Society were listened to, after which Dr. J. W. Owens, of Carthage, having been duly examined, was admitted as a member of the Society, and signed the Constitution.

Dr. J. H. Cooper presented the name of Dr. Lorenzo West, of Watertown, as a suitable person to become a member of this Society. He was admitted, and signed the Constitution.

The President declared the election of officers next in order, whereupon Dr. J. W. Sargent offered the following, the Society suspending the rules, and there being no objection:

Resolved, That, whereas the time since the organization of the Society being so short, the officers then elected be continued in office another year, and until their successors are chosen.

The resolution was adopted. The delegates appointed at the same time to the State Society were authorized to serve as the delegates for the ensuing year.

Dr. J. W. Owens made extended remarks upon the base of the brain as the index of longevity or vital vigor (other things being equal), as set forth by the late Prof. W. B. Powell, of Kentucky; he also explained the mode of applying the theory, by the measurement of several heads present.

An animated discussion followed upon the theory presented by Doctors Waful, Owens, Stanton, Sargent, Fassett and Rega. Dr. Cooper then exhibited to the Society three bottles, each containing a

tape worm in good preservation, which he had removed from different persons, one forty-seven feet long and three-fourths of an inch in width, taken from Wm. Childs, of Leray, Jefferson county; one of forty-two feet in length from Wm. Wright, of Boston, Mass., and one of twenty-three feet from Mrs. Peter Magrand, of Pamelia, Jefferson county.

Dr. Owens promised the Society a written dissertation on longevity and vital vigor, at some future time.

Dr. Cooper also promised the Society a detail of his treatment for tape worm.

Dr. C. E. Heaton now occupied the chair.

Dr. L. Stanton read a short essay and accompanied the same with interesting remarks on the use and properties of the Erigeron Canadensis, for which the society voted him thanks, and ordered the essay on file with the proceedings of the meeting.

Various other topics of interest were discussed in committee of the whole, until the hour of adjournment.

Adjourned to the second Tuesday in July, 1867, at 10 o'clock, A. M., at the American Hotel, Watertown.

L. STANTON, M. D.,
President.

DR. J. W. SARGENT, *Sec'y.*

SECOND ANNUAL MEETING.

The Society met pursuant to adjournment.

The meeting was called to order by the President, L. Stanton, and as there were so few members present on account of the inclemency of the weather, no business was transacted, and the Society adjourned to meet at the same place on the 2d Tuesday of July, 1868.

L. STANTON, M. D.,
President.

DR. J. W. SARGENT, *Sec'y.*

THIRD ANNUAL MEETING.

July 14, 1868.

Meeting called to order by the President, and the proceedings of the last annual and special meetings were read and approved.

The report of the Committee of Correspondence in regard to the preparing of a National Pharmacopœia was called for. The committee reported progress, and asked for further time.

The following persons were elected officers for the ensuing year:

President, ... LYMAN STANTON, M. D.
Vice President, ... J. A. REGA, M. D.
Secretary, ... E. ALLEN, M. D.
Treasurer, ... A. P. HALE, M. D.

The Society listened to extended remarks by Dr. Hale, of Adams, on the Principles and Practice of Medicine. The doctor is an *old war-horse* in the Reformed practice. He decidedly and emphatically disapproved of irritant poisons as medicines. He said, that in a practice of over thirty years he had never administered them, and had never seen the occasion; and he challenged a comparison of success with any Old School physician who does use them. He called upon the members to beware how they meddled with such articles, urging them to rely on harmless and sanative agents and avoid all poisons.

Dr. Stanton read a paper on Onions as a Disinfectant in Epidemics and Small-pox, which was received and ordered on file.

The following persons were appointed delegates to the State Eclectic Medical Society: Doctors Stanton, Hale and Allen.

The meeting adjourned to meet in Watertown, at the American, on the 2d Tuesday in July, 1869.

L. STANTON,
President.

E. ALLEN, *Sec'y.*

PROCEEDINGS OF THE THIRD ANNUAL MEETING OF THE TWENTY-THIRD SENATORIAL DISTRICT ECLECTIC MEDICAL SOCIETY, HELD AT NORWICH, CHENANGO COUNTY, JUNE 10, 1868.

The meeting was called to order by the Vice-President, Dr. J. J. Westcott.

On motion, Dr. H. C. Gazlay was chosen Secretary *pro tem.*

The committee appointed to draft by-laws asked further time to report, which was granted.

An interesting discussion followed with reference to several important diseases, their nature and appropriate treatment, which was participated in by Drs. Aylworth, Crandall, Gazlay, Gridley, Lawrence and Westcott.

On motion, it was resolved that the next semi-annual meeting be held in the village of Chittenango, Madison county, on the 13th day of January, 1869, at 10 o'clock A. M.

The following officers were elected for the ensuing year:

President,..... G. E. LAWRENCE, M. D.
Vice-President,..... O. L. SOUTHWORTH, M. D.
Recording Secretary,..... E. E. SALISBURY, M. D.
Treasurer, ... J. J. WESTCOTT, M. D.
Corresponding Secretary,..... H. C. GAZLAY, M. D.

Board of Censors—B. H. AYLWORTH, M. D.; E. L. BAKER, M. D.; T. L. HARRIS, M. D.

For permanent members of State Society—E. E. Salisbury, McGrawville, Cortland Co., N. Y.; E. L. Baker, Marathon, Cortland Co., N. Y.

Committee on the Good of the Society—Dr. T. L. Harris, Annual Address; Dr. B. H. Aylworth, Diseases of the Uterus and Appendages; Dr. R. P. Crandall, Scarlatina; Dr. F. D. Gridley, Dysentery; Dr. J. J. Westcott, Typhoid Fever; H. C. Gazlay, Phthisis Pulmonalis and Diseases of the Lungs.

Delegates to State Society—Drs. E. L. Baker, R. E. Ferry, D. K. Allen, A. S. Douglass.

On motion, adjourned.

T. L. HARRIS, M. D.
President.

E. E. SALISBURY, M. D., *Secretary.*

DISEASE AND TREATMENT.

By A. H. BOWEN, M. D.

Disease is divided into two general classes—functional and structural—and these again into numerous subdivisions, which are merely for the convenience of the therapeutist; as disease has, properly speaking, but one definition, to wit: "An opposite condition to that of health," or "Vital action in relation to things abnormal." But, as the subject of a diseased condition of the human organism has engaged the attention of some of the most enlightened minds from the days of Hippocrates to the present time, the few thoughts here hastily thrown together will not shed much light on the science of medicine. Comparing the notions and vagaries of the devotees of medical science in its early days with the opinions of professors of medicine at the present time, we perceive the extent of the ground that has been gained by patient investigation and experiment during the intervening years.

The controversy that began between the dogmatists and empirics of the school of medicine at Alexandria, in Egypt, has continued until the empirics have been ruled out. But many of the dogmatists entertained the idea secretly that disease was essential to the nature of man; that it was a necessary evil that must be borne with becoming resignation to the power and wisdom of God; while those of the present day hold that disease originates in the human system through the violation of the organic laws, the first manifestation of unhealthy conditions in the organic domain being through a disturbance of the regular functions of some one or more of the various organs of the body. The remote cause of these abnormal conditions is bad physiological habits; thus producing a disturbance of the nervous fluid and forces, and ultimately effecting the mental functions. We have come to regard man as a perverted being the world over. For every nation, savage and civilized, have either an intoxicating drug or liquor, which is in general and habitual use among the people. And, as these directly influence the animal passions, they are mainly instrumental in producing depraved appetites and feeble constitutions among all classes of society.

A scrofulous diathesis can be frequently traced, as its remote cause, to the inharmonious blending of the temperaments in the offspring

of parents in whom the requisite difference of temperaments does not exist. Then, to the end that the masses may secure sound constitutions for their children, let us enlighten them in the principles that regulate the generation of healthy offspring, and teach them the theory of true marriage. Having thus secured sound physical and mental constitutions, we should instruct them how to live in accordance with the hygienic laws. This accomplished, the task of the physician in treating the cases of disease that will still come under his care will be comparatively easy and successful. In our own and more northern latitudes, exposure to extreme cold or wet, in conjunction with some excess in diet, is a frequent cause of inflammations and fevers. This checks the perspiration of the skin, driving the blood and effete matter with which it is incumbered to the internal organs, producing obstructions in and congestions of those that are the most liable to disease. The treatment should, therefore, first restore the normal balance of the system, by the exhibition of proper remedies; removing obstructions, expelling impurities, relaxing intensive conditions and intensifying torpidity of action, equalizing the circulation, and inducing healthy secretions, without inducing any of the deleterious results following the heroic treatment of Old School physicians. I think we should simplify our remedies and mode of treatment, and place more reliance on the "Vis Medicatrix Naturæ" in working the cure. The intelligent physician readily perceives the hygienic agencies that are indicated as auxiliaries in the treatment of the particular case in hand; at the same time taking into consideration the habits and the idiosyncrasies of his patient, instructing him in the first principles of physiology, teaching him how to be temperate in both the physical expenditure of the vital forces and in the labors of the mind; and, at the same time, enjoining the strict observance of the rules of breathing, exercise, cleanliness and equanimity of mind.

We do not here attempt to give specific rules and directions for the application of the principles of mental hygiene. Our purpose was merely to call the attention of physicians to this important subject; for we are persuaded that no considerable advantage will be gained until they are incorporated into our medical curriculum.

MEDICAL STUDIES.

Delivered before the Eclectic Medical Society of the Thirteenth and Fifteenth Senatorial District, by H. PEASE, M. D.

Mr. President and Gentlemen:

We have assembled to organize a Senatorial District Society, auxiliary to the Eclectic Medical Society of the State of New York. To-day is the time to work, for if it is difficult to do to-day what ought to have been done yesterday; how much more laborious still for the next generation to do what devolves upon the present.

Who does not learn by experience the value of time? How often have we been called to see a patient who has been neglected for days. Have not we in such cases to operate against time? Time stops for no man, sick or well; time restores and destroys; there is a time to work and a time to rest; time in music (and music out of time); therefore, let us, as medical reformers, always be in time to do good to all men. There is a great field open before us, and the occasion bids us work while our days of life shall last. Why are we gathered here to-day? for what? To communicate knowledge. Then, let us impart what we know and speak our thoughts, that information may move on, from mind to mind; and thus each thought uttered will be riveted; and the aggregate of useful knowledge thus imparted will not be lost, but will become the inheritance of us all.

Each generation has its own part to perform, and our part must soon be done; for the passing hour admonishes us that soon there will be, for us, no more time. In casting our eye over the field which we have chosen for our arena of action, what do we behold before us? The mineral, vegetable, and animal kingdoms constitute the world; and, gentlemen, this is no small field to labor in. Therefore, the importance of association, to consult together, exchange views, and in this way to bring forth something that may be turned to useful account. It is a notable fact that the mass of men, from time immemorial, seek that which is known, instead of investigating for themselves. There are not, perhaps, more than two or three original thinkers in a hundred who advance new principles. Is it any wonder that science progresses slowly? Why is this? Shall I pause for an answer? Is it because they have a larger brain, and their minds are more favorably developed? Or is it because men

neglect to think, and seek after other men's thoughts? I do not doubt but that we have a large class of men capable of improving on first ideas. But if a man will school his mind to think, and "paddle his own canoe," he will in some things be original.

There are no two men who think, look or act alike; hence he who thinks for himself will be very apt to add a new link to the chain of science, although others may have done the same before. But this will not prevent his thought from being original on his part; and we should not discourage him from persevering in well-doing. He may, by continued effort, bring to light a new principle. It never was designed by the Creator that the mind of any one man should comprehend all things; therefore it is impossible for one to grasp even any one science in all its intricate parts. Dr. Franklin only bottled electricity; it remained for a Morse to appear and give to the world its practical utility. Dr. Thompson discovered the fact that fever was a friend; also, how to ascertain the different properties of medicine by taste. But it remained for Merrell and others, by chemical process, to concentrate their properties; and why cannot we, individually, add something new to the good cause in which we are engaged.

Gentlemen, I am not talking thus to be heard for my much speaking, but simply to endeavor to arouse you to think, act and fill your measure of time, for soon there will be for us on earth no more time.

SCROFULA.

Read before the Eclectic Medical College of the Thirty-second District, by A. P. PARSONS, M. D., of Forestville, N. Y.

Much has been written and many theories have been advanced as to what constitutes scrofula. Dunglison defines it as "a state of the system characterized by indolent glandular tumors, chiefly in the neck, suppurating slowly and imperfectly, and healing with difficulty," etc. Erickson says it is "a peculiar constitutional condition, either hereditary or acquired, which, when fully developed, leads to the formation of tubercle." As there are two distinct and divergent scrofulous temperaments, it will be well to refer to a few of their prominent features. The common form is that in which the growth is precocious and rapid, the mental activity is great, the procreative powers are early developed; in short, those in whom the nutritive, mental and procreative powers are rapidly developed in early life, and, of course, become prematurely exhausted. These are always vivacious and cheerful. These require special care to preserve the strength and prevent a rapid decline.

In the dark form of the scrofulous temperament we usually find a heavy, sullen and forbidding aspect, a dark, coarse skin, sallow and greasy looking; short, thick, dark and harsh hair, inclined to curl; mental faculties inclined to torpor or sluggishness. This class will bear more active treatment, and it is among these we find our most troublesome skin diseases, especially of the scalp. There are several subdivisions to which I shall not refer.

The digestive organs are, in all its forms, very weak and irritable. The bones are spongy in their texture, and when fractured unite slowly and oftentimes imperfectly. The term "king's evil" is only applicable to that form of the disease which is seated in the glands of the neck. In an inflammatory or ulcerative stage, and in real scrofula we find developed a peculiar kind of matter whenever a gland suppurates, differing very much from pus, being a white or greyish curdled matter, which Mr. Simon calls a dead concretion. It consists of lymph, or nascent blood, and differs from coagulable lymph only in degree of vitality and capacity of organization, and somewhat resembles the coagulum of milk. We will not enter into the minute symptoms characterizing the disease, but will presume

you are familiar with the erudite and concise descriptions given by our authors, and also the more useful observations gained by practical experience. As the worst forms of the disease are located in the lymphatic and absorbent glands, we infer that an imperfectly developed, or degenerate lymph, has very much to do with its suppurative stage, the cellular tissue being the repository of the vitiated secretion.

When pure lymph is exposed to oxygen, it soon becomes red, and it is probable the lymph corpuscles are the parts acted upon by the oxygen, for it soon coagulates; hence the conclusion that the system is deficient in oxygen, which must be supplied by pure air, and such food as will contribute to the development of healthy blood, muscle and tissue. I believe physiologists are not quite agreed upon the origin of lymph; but I am inclined to the idea that it is the product of internal absorption in different parts of the body; that it flows along the lymphatic vessels, uniting with the chyle, and is poured with it into the veins, thus becoming one of the materials of the blood. Dunglison says blood is a fluid, formed chiefly from the chyle, and is composed of water, albumen, fibrin and corpuscles.

Lymph is composed of water, fibrin, albumen, chloride of sodium, subcarbonate of soda, phosphates of lime and magnesia and carbonate of lime; but the color varies according to the location of the glands from which it is taken; it is usually transparent and slightly alkaline, but is reddish or yellowish in some glands.

Blood and lymph agree in composition in only three elements before being combined, viz: water, fibrin and albumen. As long as these fluids remain in due proportions, the health is perfect as far as they can control it.

As the chyle has so much to do with the formation of healthy fluids, we see the necessity of keeping the digestion perfect, the absorbents active, the excretions free, especially of the skin and kidneys. With tonics, alteratives and diuretics should be combined a proportion of alcoholic stimulus, to secure a more prompt action of the remedies, and to prevent a degeneration of the soft tissues. My reason for advising wine, gin, Bourbon whisky, etc., is the firm belief I have that lymph is in excess, and produces the softening of the tissues by its too thin or aqueous condition. Lymph is soluble in water; but mix it with alcohol and it becomes firm and hard to a certain extent. The tendency of the fluids in scrofula is to become disintegrated, especially the blood, which loses its rich coloring matter, and its

place is supplied with a serous effusion, which would, in a measure, be counteracted by preserving an equilibrium of the fluids, by preventing so rapid a formation of white blood or lymph. A sponge bath, composed of alcohol, salt and water, each night, or at least twice each week, I consider a valuable auxiliary. Apply it warm; just before retiring for the night is the best time; it allays nervous irritation by its tonic and cleansing properties. Among our best *alteratives* I prefer Pyros Americana (*mountain ash*), stillingia, arctium lappa, and rumex crispus. Chloride of gold is a powerful alterative, and should be used with caution where there is much debility. Where there is a venereal taint, a larger quantity will be borne well. Chelone glabra, populus tremuloides, hydrastis canadensis, are valuable. The chelone glabra I find the most reliable. The bromide of potassa and bromide of ammonium I use freely, and but very seldom the iodide of potassium. The phosphates of lime, manganese and iron are valuable remedies.

As the treatment of diseases depends upon the development of symptoms at the time a physician is called, it is useless to prescribe a course of action which can invariably be adopted. I shall not trouble you with more than two formulas, which I have found to agree with a large class of the cases where debility, nervousness, etc., are very prominent and hard to control.

NERVINE TONIC.

℞	Fluid ext. Frasera Carolinensis (American Columbo),	
	" Chelone Glabra (Balmony)	aa ℥ j
	" Scutellaria Latefolia,	℥ ss
	" Amemone Pulsatilla,	ʒ ij
	Bromide of Ammonium,	grs. xcvj
	Bourbon Whisky,	ʒ x

Dose, one teaspoonful at night; repeat, if necessary, every two hours.

ALTERATIVE.

℞	Fl. ext. Stillingia,	
	" Ptelia Trifoliata (Swamp Dogwood),	
	" Pyros Americana (Mountain Ash),	
	" Populus Tremuloides,	aa ℥ j
	Bromide of Potassium,	ʒ iij
	Simple Syrup and Bourbon Whisky,	aa ℥ ij

Dose, teaspoonful, four times per day.

Hoping these hastily written lines will call the attention of the profession more closely to the peculiar changes in the system of the secretions, and guide in the proper selection of remedies, is the wish of the writer.

NOT DEAD—The death of Doctor G. E. Salisbury of Corry, Pennsylvania, was announced at the semi-annual meeting of the New York Medical Society. It was an error. Doctor Salisbury is alive and in usual health.

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